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of the South and Southwest as the Nation's Greatest Material Asset

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## A GOODLY ITEM TO BE SAVED.

St. Louis, Mo., March 4, 1922.

Editor Manufacturers Record:

In the MANUFACTURERS RECORD which came yesterday, on page 76, you ask what would the sum amount to if Henry Ford at Muscle Shoals should save the people \$25,000,000 the first year and evenly increasing the amount each year until at the hundredth year the amount he would save them would be \$50,000,000 a year, the whole amount computed upon a basis of compound interest at four per cent per annum.

I have just figured it out and the aggregate sum would be \$3,884,405,912.50 (three billion, eight hundred and eighty-four million, four hundred and five thousand, nine hundred and twelve dollars and fifty cents). Assuming the population of the United States as 100 million people, it would give every man, woman and child \$38.84.

CHAS. A. DELBRIDGE.

We are glad to have Mr. Delbridge's computation but as a matter of fact the amount saved annually on a basis of a 10 per cent saving in fertilizers would probably exceed \$50,000,000 a year within one or two decades, for our consumption of fertilizers must necessarily enormously increase.

Perhaps the way we stated the case gave Mr. Delbridge reason to understand we meant a saving of \$50,000,000 a year, by the end of the hundred year period. The meaning we intended to convey was on the basis of \$25,000,000 saved now and gradually increasing to \$50,000,000 and then on to still larger amounts, for it is difficult to estimate how big will be our fertilizer consumption even twenty-five years hence.

However Mr. Delbridge's figures show that the gain to the country would even on the basis of his computation be as 4 to 1 compared with the loss which the fertilizer people claim the country would suffer by the acceptance of Ford's offer.

The chains of habit are generally too light to be felt, until they are too strong to be broken.—Dr. Johnson.

## AN AMAZINGLY CLEAR STATEMENT OF FINANCIAL CONDITIONS FROM NEW YORK.

[Extracts from March 10th Bulletin of The First Federal Foreign Banking Association, 40 Wall Street, New York.]

"THE big real reason for our loss of trade was our ill-advised campaign of drastic artificial deflation, which was the acute cause of credit troubles in other foreign countries. The mistake of drastic deflation is now frankly recognized by the broadest-visioned bankers of England (such as Mr. McKenna, head of the London Joint City and Midland Bank, Ltd.), who are so thoroughly acquainted with the organization of commerce and world-wide commercial finance as to be able to picture it clearly.

"Mr. McKenna, in an address to the shareholders of his great bank, a few weeks ago, gave a clearcut, business-like explanation of what is going on over the world that deserves to be put in book form as part of the permanent literature of live business, economics. In advising against a mistake which would be just as ill-effective in its maladroitness as artificial deflation, that is, the adoption, now, of a policy of artificial inflation, Mr. McKenna spoke his mind without reserve about what had happened to British trade and to other countries' trade by the deflation policy in which England led and America followed.

"One of the pointed things he said has a direct bearing on the credit situation here and elsewhere over the world. He said that an examination of the actual business of British banks had brought out the fact that the maintenance of a large aggregate of deposits and of loans and discounts, hardly diminished at all by the existence of universally recognized contraction of Britain's commerce (a fact which has been paraded there, and here, as "evidence" that the opinion naturally expressed among business men that there has been restriction of credit is a mistake) is to be attributed to a slowing-up of the turnover of bank credits in the activity of business. Bank credit had stagnated at a high level, instead of moving in and out and from hand to hand in the exchanges that take place in healthy business times. The velocity of the movement of bank credit as a medium of exchange in England, he said, was forty per cent slower than in normal times.

"A hundred million pounds Sterling in British bank credits gave service of commercial finance to only £60,000,000 of business in real turnover in the same period of time that it ought, under healthy conditions of trade, to give the same service to £100,000,000 of business. The other £40,000,000 evidently represents business in stagnation, on which the national organization of business is paying a mori-

bund overhead of interest at the expense of the 60 per cent of genuine vitality of turnover.

"Back in the period of the war and of the boom that followed the armistice, banking resources were greatly expanded both here, in England, and elsewhere over the world. The deposits and the loans represented business revolving at top speed, in great volume, with prices high, and the speculative spirit of enterprise in full confidence.

"When the program of credit restriction was launched, the first thing deflated was confidence.

"The deflation of prices that was intended came only in part. Prices of the staple commodities fell away rapidly. In the case of manufactures, there was not so much of a drop in prices as there was collapse of industrial activity and trade.

"The buying power of that part of the world's population which is busy with the production of raw materials when it is busy at all was suddenly cut down. As the great economist, Dr. Cassel, of Sweden, has said, we cut off our own and Europe's foreign market possibilities over a wide part of the world.

"We brought hard times all over Latin America by cutting down our purchases and the prices we paid for its products.

"We brought crisis in Cuba, Brazil and on the West Coast of South America from Columbia down to Cape Horn.

"We made the safe and productive rehabilitation of Europe at once an impossibility, by bringing on world-wide conditions that made it absolutely certain that Europe's industries could not find a market, even if they were got going quickly with our money and our machinery and the raw materials from our own and other countries.

"The situation, which included unemployment, fall-off in domestic business as well as foreign, the necessity of writing-down inventories of unsalable goods to a safe basis of valuation even when the nominal prices remained up, ensued. The process of building up a great volume of bank credit in the country in an expanding period, including loans by banks to one concern on the basis of a sound proportion of receivables, these loans becoming deposits of other concerns very quickly, the deposits then being drawn upon for transfer of bank credit as medium of exchange in check payments—a process of highly intricate, exquisitely organized incessant activity of exchanges of credit and expansion of credit—is an easy one, entirely legitimate and sound if every credit represents a bona fide value in the going commerce of the country.

"The process of cutting down a great volume of credit can never be anything but difficult, dangerous, fraught with certain losses, with destruction of confidence, with disorganization of ten times as much good business as there is "unsound" business "deflated."

"Deflation came with suddenness, at the end of a period when a vast aggregate of bank credit had been rolled up in the form of deposits that represented the payments taken for production of war materials, bought by governments at high prices and then destroyed or largely wasted. This excess of buying-power in bank credit with no tangible goods behind it had competed with the bank credit which grew naturally out of current economic production. It had had

much to do with the boom. Nothing in the process of deflation could destroy that factor among the bank credit of the world.

"What deflation did was cut down the current production of the healthy bank credit growing out of current industry of the constructive industrial character. The continued production of bank credit in a vast swing of peaceful business over the world would, in time, have absorbed all the hang-over of the abnormal war-production credit.

"But deflation came, suddenly. It destroyed confidence, froze up business everywhere, and, instead of after-war business activities of the world being permitted to absorb the paper-wealth engendered by war-time profiteering, the paper-wealth was given even greater buying power through "deflation of prices," and if it has been absorbed since in legitimate economic production it has been because of the existence of enormous unproductive consumption by idle labor and in the overheads of part-time industry and of business operating at a loss.

"In America, as in England, and elsewhere over the world, we have been passing through a period of camouflaged stagnation. If there was the inflation of a great world-wide "boom," with high-pitched optimism of speculative enterprise working with energy everywhere, and values psychologically swollen, "deflation" did not really deflate at all, but simply changed the character and quality of the inflation.

"Instead of the "inflation" that goes with healthy enthusiasm in business, there has been a moribund type of inflation of credit, in which our commercial banks continued in debt, month after month, because they were carrying the frozen loans of stagnant industry and trade; stagnant industry and trade were unable to make use of a great mass of bank credit that does not represent current economic activity at all, as commercial bank credit should, but was largely the vast overhang of war-time paper wealth; the factor of live commercial credit of genuinely sound character in the total of our bank credits during the "deflation period" has been smaller in proportion than in the wildest time of the "boom"; gradually, in a period of considerable financial activity of a non-commercial character, a great load of frozen commercial credit has been lifted from the banks of the world, probably using up the excess of the non-productive paper wealth in the form of investment in the process.

"And now we seem to be approaching the end of the period of what is at last frankly recognized by the world's greatest bankers to have been pseudo-deflation finance. The world is rapidly adjusting in every direction. \* \* \* "

"The great commodities of the world are now in process of a new stage of price adjustment. The products of our own agriculture, after the low levels of the "distress liquidation" of the deflation months, are now rising so as to reach the economic price relationship with the products of our manufacturing industries more in line with the old normals. Cuban sugar is recovering from the slump it has had."

In repeating in the foregoing some of the extracts which we have printed on the cover page of this issue we are giving to our readers, to those who have agreed with us and to those who have disagreed on the question of deflation, the opportunity of studying the view of one of the great banking

associations whose operations under the Edge Law take cognizance of world trade.

The First Federal Foreign Banking Association, from whose Bulletin No. 18, dated March 10, the foregoing extracts are taken, was, so far as we know, the first publication in this country to warn the world that a scheme of world wide deflation had been launched by the League of Nations. At the time when we published that statement from one of the bulletins of this banking association, many people in this country were amazed to learn that such a scheme was under way.

With exceeding clearness and felicity of statement this banking association now specifically charges, just as Prof. Cassel, of Sweden, has done, that the world's breakdown in business was due directly to an unwise deflation campaign in this country. We only regret that so wise and clear a statement as the First Federal Foreign Banking Association has made of world-wide business depression during the last two years has not been seen as clearly by the men who have managed the Federal Reserve System, and whose deflation work has wellnigh bankrupted the universe. Fortunately, the evil work is passing away, and as the banking association says, the world is now rapidly adjusting itself in every direction and after the low levels of "distress liquidation" of

agricultural products, rising prices give indication of a return to more normal conditions than we have had since the time of which it says "when the program of credit restriction was launched the first thing deflated was confidence."

Confidence at last is returning; prices are advancing; and after one of the bitterest experiences in all the records of the world's business affairs—an experience wholly and absolutely unnecessary and unjustified, an experience based on what we believe to be the greatest financial crime ever committed in human history—the tide is turning to betterment.

The First Federal Foreign Banking Association commends the position taken by Prof. Gustav Cassel in his recent report to the League of Nations, in which he scored deflation, and in the course of which he said:

"The downward movement of prices has not, as is sometimes assumed, been merely a spontaneous result of forces beyond our control. It is essentially the result of a policy deliberately framed with a view to bringing down prices and giving a higher value to the monetary unit."

The MANUFACTURERS RECORD submits to its readers this confirmation of all it has said against "drastic deflation," assured that time will yet bring the whole world to a full realization of these facts.

## The American Soldier and the Bonus.

**M**ONEY, it has been said, is the greatest coward in the world; and certainly it is showing this characteristic in the opposition of business men who are fighting against an adjustment of the soldiers' pay, or the bonus as it may be called.

This nation drafted into service more than four million men. It took them away from their homes and their business. It paid them a beggarly sum, while at the same time it encouraged the wildest extravagance in the pay of the laborers at home in building ships, and army camps and kindred work, that was ever known in the world's history.

The soldier was shot if he proved to be a coward or recreant to his duty.

The laborer in the ship yards and on camp work and kindred activities was paid a premium for cowardice and inefficiency. He was too cowardly to put forth his utmost exertion in construction work, too cowardly to go contrary to the regulations of the labor unions which directed him and which largely ruled the country; and for this cowardice he was given a premium in the way of extra pay for work overtime, on Sundays or holidays.

On one hand we demanded of the soldier the highest form of sacrifice and patriotism. We said to him, "Our lives and our property and our Government are all at stake. You, and you alone, stand between us and destruction. We throw upon you the burden of saving our business, our homes and loved ones, and risking your lives that we may live and our property and our country be saved."

On the other hand, in effect we said to the laborer, "Gouge the country for every last dollar you can get out of it. Be as inefficient as possible. Strike, as you did more than 6000 times during the war, and delay the munitions and supplies needed for soldiers to give them success in the struggle." The business man, whether banker, merchant or manufacturer, put forth his utmost exertion to increase the volume of his trade and to enlarge his profits.

Before the marching soldiers, leaving home for the camp or foreign shores, we stood with uncovered head, bowing almost in reverence to the spirit of sacrifice, realizing that they must offer their lives on the battlefield to save us. Superb, heroic courage of the soldiers, patriotism rampant, as they sought to stem the onrush of barbarism and save

the women and the children of this country from the horrors, which the women and the children of France, and Belgium had endured; that was the spirit which was abroad in the days which tried men's souls in the hour of world agony, when inhuman barbarism stalked abroad and threatened world domination and damnation.

And now the soldier, honored and petted then, placed on a pedestal as the embodiment of patriotism and of willingness to sacrifice his life that the rest of us might live in peace, finds that the cowardice of money demands that he shall not receive any financial remuneration as an expression of a nation's gratitude for salvation through his sacrifice. It will belittle patriotism, say some of these opponents. It is unworthy of the soldier's spirit of love for his country, say others. The Nation cannot afford it, is the cry of the money changer; and business men who four years ago were eager to bow down and worship the soldier for his willingness to die that they and their families might live, now dare to talk about the lack of patriotism on the part of the soldier in asking for some financial recognition of his losses, by being away from home and business for two years or more.

Talk about the cowardice of money: it is as nothing compared to the cowardice of those who are berating the soldier, who are denouncing his requests for some adjustment of pay, who say that the Nation cannot afford the increased cost, when as a matter of fact all that the Nation has and all that it may hope to have in the future is due to the fact that these soldiers saved it from ruin, and from the tread of the accursed army of the barbarians who overran France and Belgium.

It is an amazing thing that so many otherwise sensible Americans can be swept off their feet by the propaganda against an adjustment of pay to the soldiers. It is an incomprehensible thing that men who honored the soldier for his work now denounce the soldier because he asks for some adjustment of pay. It is a shame upon the Nation and upon every business man in it that we did not voluntarily extend some offer of remuneration to the soldier without for one moment having waited for him to ask it.

We brought the soldiers back to a country which had been robbed by financial mismanagement of that prosperity



to which it was entitled, and in which if it had endured they would have found ample opportunity for employment. We deliberately broke down business. We impoverished the country by financial mismanagement, and Democrats and Republicans alike have been guilty of the greatest crime in this respect recorded in human history.

And then we say to the soldier that we are too poor, as a Nation to aid you, and you are unpatriotic in asking the country to adjust your pay by some little financial recognition of your work and your losses. A bonus would break down patriotism, some say; when as a matter of fact the spirit that is abroad in the land against a bonus is the most damning power ever put into action in this country to destroy patriotism.

Why should a young man be willing to sacrifice his home and his happiness and his life itself to fight for a people or for a country where he is praised while he stands in the great struggle of life and death, but spurned and charged with a lack of patriotism when he asks that the people who have been saved by his sacrifice shall show some recognition of what he has achieved for them? Never was there put forth a movement more thoroughly calculated to destroy patriotism than the fight against the soldier's adjustment of pay and the denunciation by the press and by the financial circulars of banking houses, and by business organizations against the soldier. If those who are opposed to an adjustment of pay for the soldiers were moved by as much patriotism as that which filled the breast of the soldier as he entered the battlefield, no man in this country would dare to raise his voice against a soldier's bonus.

We are not unmindful of the fact that taxation is heavy and that business has been stagnant, that millions of men have seen their all swept away. But we know that this country of matchless resources can recreate a prosperity so vast and all-encircling in its sweep as to make the amount to be paid to the soldiers small as compared to the annual increase in the Nation's wealth in the years to come.

It is difficult, however, to have patience with many of the absurd propositions which have been put forth in Congress for the issuing of deferred payment certificates, with the requirement that the banks shall loan on them to about one half of their face value, thus dishonoring to the extent of 5 per cent the Nation's promise to pay, and putting it into the power of the Federal Reserve System, if such a plan should be carried out, again to deflate the currency and the credit of the country and bring on another drastic deflation a few years hence, should the men then in charge desire another breakdown of prices.

We fully realize, as the MANUFACTURERS RECORD has repeatedly said, that the destruction of business will make the income tax return for last year and for the present year far below the requirements of the Government. But this breakdown of business and the loss of profits and therefore, the loss of income, is due to governmental mismanagement of the Federal Reserve System and as a nation we have only ourselves to blame for loss of profits and loss of national income. These things were inevitable from the day when we began a deflation campaign which as the First Federal Foreign Banking Association of New York has aptly put it, made itself first felt in the deflation of confidence, and as that same bank says, "We are responsible for the business chaos of the world."

But the soldiers were not the ones who brought on this collapse. They have rights which the nation should respect and honor regardless of how great may be the cost in maintaining the nation's honor in relation to its dealings with its soldiers.

## TO WHOM THE SURPLUS BELONGS.

McCoy-Brandt Machinery Co.,

Pittsburgh, Pa., February 28, 1922.

*Editor Manufacturers Record:*

The policies and attitude of your RECORD have been highly respected by the writer all the more because you are so fearless, equitable and plain in your dealing with all questions, and printing all views of your readers regardless of the possible adverse effect upon others, and oh my! how too few pretentiously broad gauge publications cater to public opinion. Spineless editors, eh?

Your little note on how to raise the cash for a bonus caught my eye and I enclose it herewith. May I venture to say that what Uncle Sam saves in buying bonds in the open market is truly and properly saved for the tax payers? Why should he not save this for we are all clamoring for reduced taxes, but I would surely have a tremendous satisfaction to know in detail what use is made of the enormous profits made by the Federal Reserve Bank. I have learned from your paper what is done with some of it; very comfortable salaries, banking palaces, and as I understand 6 per cent *only* goes back to the stock holding banks, and what about the balance? If the business man must pay why should not the tidy balance be used, instead of forcing heavier taxes upon overburdened people? Talk about profiteering! Uncle Sam through the Federal Reserve is certainly setting a model example. The above is just a thought and a place where some of our taxes might be balanced slightly.

Wishing you success commensurate with your effort.

W. E. BRANDT.

Mr. Brandt seems to have overlooked the fact that Uncle Sam was dishonoring his own obligations by permitting the Federal Reserve Board to do all in its power to break down the price of the bonds which represented the honor of the nation, and at the same time was buying them in at these depressed prices.

At the moment we have before us a letter from a leading business man of Florida in which referring to this point he writes:

"The great United States Government is the only one in history that has ever gone into the market and made a business of the buying of its own promissory notes at less than face value. What do you think they would say of an individual who endeavored to settle his obligation on the same basis? It is not at all impossible that the Lord will soon take a stick and drive the money-changers from the temple for a second time."

In reply to Mr. Brandt's inquiry as to what uses are made of the enormous profits of the Federal Reserve Bank, we would remind him that in a recent issue it was shown that these banks had accumulated a surplus of \$215,000,000, which belongs under the law which they succeeded in slipping through Congress, to the Federal Reserve Banking System, and which does not belong under that law to the people of the country, and that, therefore, all stockholding banks have their pro rata interest in this surplus.

The people of the country were under the impression that the Federal Reserve Banking System would inure to the benefit of the country and that the profits thereof to the extent of 90 per cent after the payment of 6 per cent to the stockholding banks, would go as a franchise tax to the Government. But these banks have paid to the Government a franchise tax of \$125,000,000 and have laid aside for themselves a surplus of \$215,000,000; and nearly all of that surplus was made during the last three years.

## WHY THEY WANT IT.

Until Henry Ford made an offer for the Muscle Shoals property no one wanted it and it is pretty generally believed that no one wants it now except to keep Henry Ford from getting it.—Jacksonville Times-Union.

Ford would certainly be a thorn in the flesh to the interests who have combined against him. We wonder if it could not legally be called a conspiracy against him, with some of the legal penalties against conspiracy. It is certainly a combine in restraint of trade development.



## Agricultural Exports Last Year Representing Over Half of Total Value of Country's Foreign Trade Decreased in Value But Increased in Quantity.

ACCORDING to an analysis made by the Agricultural Department, the outstanding feature of the country's agricultural foreign trade for the calendar year 1921 was the increased volume of exports over 1920 and the five-year average 1910-1914; while the total value of exports showed a decrease compared with 1920, though greatly in excess of the five-year average 1910-1914.

The imports of farm products last year shows a great decrease in both quantity and value compared with 1920.

Wheat and wheat flour exports during 1921 were the largest in the history of the country, and it was the first time that the export value of wheat and wheat flour exceeded the value of cotton exports. Exports of corn were the heaviest since 1900, and rice exports were twice those of 1920.

The sum of 32 of the principal agricultural commodities entering into our export trade shows an increase of 27 per cent in quantity over 1920, but the declared value of the

same products was 39 per cent less than such values in 1920.

This decrease in the export value clearly reflects the decline in prices which the farmer received for his products during the past year.

The total value of farm and forest products exported from the United States in 1921 was \$2,201,000,000, compared with \$3,658,000,000 in 1920, a decrease of \$1,454,000,000, or 39.8 per cent. In 1919, agricultural exports were valued at \$4,257,000,000 and in 1918, at \$2,845,000,000. The annual average value for the pre-war years 1910-1914 was \$1,142,000,000.

The principal agricultural exports during 1921 and their declared values were: Wheat and wheat flour, \$551,000,000; cotton, \$534,000,000; pork and pork products including lard, \$246,000,000; leaf tobacco, \$205,000,000; corn and corn meal, \$97,000,000; sugar, \$49,000,000; rye, \$44,000,000; condensed and evaporated milk, \$38,000,000; cottonseed oil, \$24,000,000; rice, \$21,000,000; and barley, \$21,000,000. These commodities

EXPORTS OF PRINCIPAL AGRICULTURAL PRODUCTS IN 1921 AND 1920, COMPARED WITH THE AVERAGE FOR 1910-1914.							
Commodity.	Average, 1910-1914.		1920.		1921.		
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
Grain and grain products:							
Wheat (bus.).....	78,390,288	\$79,149,419	218,287,334	\$596,975,396	279,948,601	\$432,964,836	
Wheat flour (bbls.).....	11,059,410	52,873,128	19,853,992	224,472,448	16,800,455	117,696,125	
Corn (bbls.).....	39,231,746	25,049,808	17,761,420	26,453,681	129,054,505	92,871,188	
Rye (bus.).....	2,068,061	1,903,357	57,070,490	122,239,537	29,811,721	44,214,420	
Rye flour (bbls.).....	14,517	66,470	363,746	3,638,438	55,654	374,155	
Rice (bus.).....	25,779,215	946,303	392,612,535	37,469,175	600,058,978	20,727,313	
Barley (bus.).....	10,200,697	6,417,446	17,854,227	27,165,189	25,834,000	20,687,056	
Oats (bus.).....	14,954,595	6,997,207	12,877,874	12,338,104	3,224,145	1,611,714	
Meat and meat products:							
Beef, fresh, canned, pickled (lbs.).....	70,603,733	7,455,188	139,186,324	27,014,413	41,060,620	5,663,084	
Pork, fresh, canned, pickled (lbs.).....	53,695,802	5,790,346	78,816,318	17,512,607	90,083,452	13,897,457	
Bacon (lbs.).....	183,093,615	23,820,756	636,675,572	156,296,908	415,209,522	68,175,003	
Hams and shoulders (lbs.).....	162,185,038	21,686,489	185,246,755	50,887,588	232,380,427	47,755,461	
Lard, including neutral (lbs.).....	514,408,249	56,390,492	635,488,022	149,177,483	892,883,645	115,969,982	
Oil (lbs.).....	109,689,796	11,723,779	74,368,344	16,585,209	127,977,713	14,617,971	
Meats, all other (lbs.).....	140,847,001	14,061,412	133,294,802	31,375,937	145,974,831	20,992,008	
Dairy products:							
Butter (lbs.).....	4,276,594	1,018,186	17,487,735	10,142,403	8,014,737	3,269,609	
Cheese (lbs.).....	5,201,580	742,066	16,291,529	5,054,253	11,771,971	2,716,258	
Condensed and evaporated milk (lbs.).....	17,526,546	1,445,386	414,250,021	65,239,020	299,171,768	37,680,030	
Fruits:							
Apples—							
Green (bbls.).....	1,676,333	6,094,270	1,797,711	14,088,733	1,936,724	13,981,865	
Dried (lbs.).....	34,886,256	2,763,415	8,827,806	1,508,987	19,962,306	2,206,843	
Apricots, dried (lbs.).....	20,190,543	2,185,061	9,881,256	2,581,750	21,575,149	4,110,403	
Peaches, dried (lbs.).....	6,095,840	431,478	7,924,831	1,465,600	6,893,124	784,640	
Prunes, dried (lbs.).....	70,872,180	4,420,717	75,138,770	11,738,312	117,933,740	9,280,298	
Raisins, dried (lbs.).....	20,394,831	1,251,341	53,312,126	9,505,202	32,968,664	5,516,800	
Cotton, raw (bales of 500 lbs.).....	8,578,691	518,071,158	6,358,627	1,136,408,916	6,678,227	534,241,795	
Cottonseed oil (lbs.).....	287,246,770	17,926,531	184,753,824	34,874,790	252,591,916	24,362,449	
Cottonseed cake and meal (lbs.).....	996,715,384	13,295,473	340,045,982	9,549,017	585,592,574	10,851,793	
Sugar, refined (lbs.).....	141,108,662	6,324,379	924,192,385	94,877,045	933,792,360	48,826,890	
Potatoes, except sweet (bus.).....	1,878,014	1,585,471	4,153,565	10,199,928	3,499,838	4,720,363	
Eggs (doz.).....	15,321,834	3,450,807	26,841,772	13,569,144	33,497,287	10,810,706	
Tobacco, unmanufactured (lbs.).....	380,272,845	44,402,570	479,900,032	245,532,069	522,756,026	205,133,430	
Hops (lbs.).....	15,836,581	4,275,507	25,624,055	17,088,472	18,459,600	6,322,995	

### IMPORTS OF PRINCIPAL COMPETITIVE AGRICULTURAL PRODUCTS IN 1921 AND 1920, COMPARED WITH THE AVERAGE FOR 1910-1914.

Commodity.	Average, 1910-1914.		1920.		1921.		
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
Grain and grain products:							
Wheat (bus.).....	1,274,960	\$1,073,610	35,808,656	\$75,359,220	23,286,024	\$35,913,210	
Wheat flour (bbls.).....	125,819	539,639	800,788	8,669,300	965,954	7,725,401	
Corn (bus.).....	* 5,437,796	3,394,922	7,784,482	9,296,991	164,097	199,074	
Rice (lbs.).....	225,308,307	5,300,619	142,951,130	14,085,728	83,895,008	3,251,734	
Flaxseed (bus.).....	8,059,752	13,377,798	24,641,190	74,622,584	12,326,244	20,439,201	
Vegetables:							
Potatoes (bus.).....	3,645,005	1,947,838	6,061,745	12,526,620	2,017,562	1,751,687	
Beans (bus.).....	1,122,600	1,973,802	2,094,646	7,509,879	274,058	647,592	
Onions (bus.).....	1,202,937	924,978	1,819,158	2,363,797	1,976,083	2,248,049	
Peanuts (lbs.).....	26,565,685	1,085,550	119,513,435	11,343,092	40,163,962	1,724,764	
Meat and meat products:							
Beef, fresh (lbs.).....	† 145,070,479	12,818,526	50,182,105	8,057,270	32,377,922	3,944,728	
Mutton and lamb (lbs.).....	† 10,214,834	935,050	101,168,319	12,645,379	25,394,088	2,990,621	
Dairy products:							
Butter and butter substitutes (lbs.).....	2,803,359	651,428	37,454,172	18,646,459	18,558,388	7,392,247	
Cheese and cheese substitutes (lbs.).....	49,882,017	8,948,967	15,993,725	5,657,035	26,866,404	8,677,216	
Eggs (doz.).....	† 3,684,775	644,912	1,708,701	617,909	3,062,601	922,859	
Eggs, dried and frozen (lbs.).....	(1)	(1)	29,022,577	7,233,614	17,896,857	3,166,228	
Peanut oil (lbs.).....	120,351,240	649,734	95,124,278	16,990,133	3,020,505	314,353	
Cotton (bales of 500 lbs.).....	231,779	21,054,315	599,989	138,743,702	277,897	32,902,193	
Sugar (lbs.).....	4,561,187,112	111,205,166	8,065,421,990	1,015,188,479	5,967,389,381	235,283,413	
Tobacco (lbs.).....	55,404,698	32,201,806	82,221,396	81,630,011	52,994,403	54,172,158	
Hides and skins (lbs.).....	510,932,610	101,389,262	510,239,620	243,877,740	348,047,322	67,561,015	
Lemons.....		4,123,684		2,904,529		1,229,671	
Wool (lbs.).....	107,230,814	38,174,770	259,617,641	126,972,088	320,665,751	60,481,687	
Cattle (number).....	450,840	9,363,405	379,114	27,418,604	194,637	6,111,673	

\* Four-year average; no figures given for 1910.

† Average for 1913 and 1914; no previous figures given.

‡ Not available.

make up 83 per cent of the value of agricultural exports. Agricultural exports represented 50.3 per cent of the total value of all exports from the United States in 1921.

During 1921 our exports of corn went chiefly to the Netherlands, United Kingdom, and Germany, where it is being used for feeding cattle and swine. This situation gives rise to the speculation as to what extent swine fattened on cheap American corn will later come into competition with American pork products in European markets.

#### AGRICULTURAL EXPORTS: PERCENTAGE OF INCREASE OR DECREASE OF QUANTITY AND VALUE.

Commodity.	1921 Compared With 1921 Compared With Average for 1910-1914.		1920.	
	Quantity Per cent Increase.	Value Per cent Increase.	Quantity Per cent Increase.	Value Per cent Increase.
Wheat .....	257.1	447.0	28.2	-27.5
Wheat flour .....	51.9	122.6	-15.4	-47.6
Corn .....	229.0	270.7	626.6	251.1
Pork, fresh and canned ..	67.8	140.0	14.3	-20.6
Bacon, hams, shoulders..	87.6	154.8	-21.2	-44.0
Lard .....	73.6	105.6	40.5	-22.3
Butter .....	87.4	221.1	-54.2	-67.8
Cheese .....	126.3	268.0	-27.7	-46.3
Milk, condensed, etc. ....	1,606.9	2,137.3	-27.8	-42.2
Sugar, refined .....	651.8	672.9	1.0	-48.5
Cotton, raw .....	-22.2	3.1	5.0	-53.0
Tobacco .....	37.5	362.0	8.9	-16.5

(-) Decrease.

The value of the imports of agricultural and forest products in 1921 was less than one-half the value of the imports in 1920. In 1921 the value of the imports was \$1,470,000,000, compared with \$3,537,000,000 in 1920. The annual average value of agricultural imports during the five-year pre-war period (1910-1914) was \$946,000,000. In 1921 agricultural imports represented 58.6 per cent of the total imports into the United States; in 1920, 67 per cent.

The total value of imports that may be regarded as competitive was approximately \$676,000,000 in 1921, or 49.6 per cent of the total agricultural imports (exclusive of wood); in 1920 the value of competitive imports was approximately \$2,131,000,000 or 63.9 per cent of the total agricultural imports (exclusive of wood).

The principal competitive imports in 1921 were: Sugar, hides and skins, tobacco, wheat and wheat flour, cotton, flaxseed, butter, cheese, eggs, rice, potatoes, onions, peanuts, beef, lamb and mutton. All of these commodities, with the exception of cheese and eggs, showed a material decline in both value and quantity from the preceding year.

#### GRAIN ON FARMS.

ON March 1, 1922, the aggregate quantity of corn, wheat and oats on farms was 1,848,717,000 bushels compared with 2,465,628,000 bushels March 1, 1921, and 1,625,209,000 bushels March 1, 1920.

The quantity of corn on farms March 1, 1922, was about 1,313,120,000 bushels, or 42.6 per cent of the 1921 crop, states the Agricultural Department, compared with 1,564,832,000 bushels, or 48.8 per cent of the 1920 crop on farms March 1, 1921, 37.2 per cent of the 1919 crop on farms March 1, 1920, and 36.7 per cent of the ten year average of 1910-1919.

The amount of wheat on farms March 1 was about 131,136,000 bushels or 16.5 per cent of the 1921 crop, against 217,037,000 bushels or 26.1 per cent of the 1920 crop on farms March 1, 1921, and 17.6 per cent of the 1919 crop on farms March 1, 1920; the ten year average is 19.8 per cent.

The amount of oats on farms March 1 was about 404,461,000 bushels or 38.1 per cent of the 1921 crop, against 683,759,000 bushels or 45.7 per cent of the 1920 crop on farms March 1, 1921, and 34.6 per cent of the 1919 crop; the ten year average is 36.4 per cent.

United States price comparisons for March are corn 54.8 this year, 64.5 last year, 148.5 in 1920, average of 107.1 for 1915-1919 and 60.5 for 1910-1914; wheat 116.9 this year, 147.2 last year, 226.6 in 1920, average 162.3 for 1915-1919 and 89 for 1910-1914, and oats 36.6 this year, 41.9 last year, 84.5 in 1920, average 60.1 for 1915-1919 and 40.1 for 1910-1914.

#### AN ENGLISH WARNING AGAINST BUYERS' PRICES ON COTTON.

"PRODUCTION will cease if combination of buyers' prices are forced down to a ruinous point." If our readers want to know where that statement comes from we can tell them that it appears in an official report issued by Major Hastings Horne to the Empire Cotton-growing Corporation of Great Britain about cotton cultivation in the Tanganyika territory in which the Cotton-growing Corporation is endeavoring to encourage the growing of cotton.

Major Horne says in his report that he thinks this can be done under certain conditions, but he lays special stress "on the necessity of protecting the natives against loss by inadequate prices during the early stages," because he says, "production will cease if combination of buyers' prices are forced down to a ruinous point."

Evidently Major Horne realizes that cotton prices have, in times past, been forced down by a combination of buyers. Unfortunately the South has had some sad experience with these combinations of buyers in forcing down the price of cotton for a hundred years or more.

#### A STRIKING BIT OF ENTERPRISE IN TOWN ADVERTISING.

NEW SMYRNA, Fla., has recently done a piece of unique advertising of an initiative character which demonstrates a liveliness of imagination and a willingness to spend money which while possibly not in the same way, might in other ways well be followed by every other community in the South. The people of New Smyrna decided to build a beautiful bungalow and to furnish it from top to bottom, and offer it as a prize for the best essay on "Why I Should Live in New Smyrna," the contest being open to the people of the whole country.

Some of the local people contributed their work toward the building, some contributed material, some furnishing people helped to furnish it, and so this bungalow, representing it is stated, including furniture, a cost of \$7,000, was held up as a prize to tempt writers of high and low degree, men and women of all classes in life, to contribute in the form of an essay their views on "Why I Should Live in New Smyrna."

The extent of the interest aroused is shown by the fact that the paper which received the prize was written by a stenographer in Indiana, and her paper was numbered over 8000. From all parts of the United States there poured into New Smyrna papers from people who had visited the town and from some who had never seen it, and the amount of advertising secured by this public spirited work is already worth many times the cost to the town people.

The winning paper was a beautifully worded picture, written by a young woman who painted her dream of being able to live in New Smyrna in a home of her own.

When the community began to receive replies running into the hundreds, and then into thousands, the town was divided up into committees, and to each committee was assigned a certain number of the papers for examination. These were winnowed out until the final committee had to read only those that had been selected as among the best. But to read over 8000 papers indicates that some work had to be done by the community.

The entire South must wake up to the value of publicity, and here and there must be initiative and liberality matching that of the little town of New Smyrna. There are a thousand towns in the South probably that have in the aggregate more wealth than New Smyrna, but nine-tenths of them have not the same kind of initiative and liberality displayed in this case; and New Smyrna, charming town that it is, will reap for years to come the benefit of its progressiveness.

## AMERICAN POTASH INTERESTS BEING FOUGHT BY GERMAN INTERESTS AND POSSIBLY BY SOME AMERICAN INTERESTS.

THE American Chemical Society sends out a statement quoting T. C. Meadows of the Eastern Potash Corporation, who was instrumental in the work of breaking up the potash trust in Germany in 1909, as saying:

"The interests which are opposing the manufacture of nitrates for fertilizer at Muscle Shoals and Sheffield, Ala., by the Government, Henry Ford or anyone else on a program of guaranteeing cheap fertilizer to the farmers of the country, are pursuing the same short sighted policy as did the interests which played into the hands of the German potash syndicate in its attempt to destroy the American potash industry."

In giving some details in elaborating his statement, Mr. Meadows said:

"Potash, it should be remembered, is as essential to fertilizer as nitrogen or phosphorus, and the development of American sources of nitrogen is not more important to the farmers of the country than the development of high-grade sources of potash."

"America, in 1915, started her potash industry. The chief source of potash prior to that time was Germany. By 1920 the industry was well under way and there were plants that could supply at least 75,000 of the 250,000 tons of potash that are annually required in this country."

"The American potash manufacturers had 12,000 tons of potash on hand last December—high-grade material testing better than the German standard. The American fertilizer companies, in buying combination, purchased from the German Kalisyndikat, or potash trust, 75 per cent of their requirements for the year 1922."

"The American potash producers sent representatives to the American fertilizer manufacturers, asking permission to bid on the remaining 25 per cent required. After brief negotiations the American producers, in order to clear the warehouses of the potash they had on hand, offered to meet the German prices or the prices of any foreign competition on the remaining 25 per cent."

"The second day after they had received the proposition of the American producers, the fertilizer combine bought the remaining 25 per cent of the potash they required from foreign producers. This action left the American producers with no market whatever for their product."

"It may well be that the motive for such an action on the part of the American fertilizer men was that the officials of the buying combine were given assurance that their companies would get substantial secret rebates that made it worth while, from a monetary standpoint, to buy all their potash in Europe and thus deal a blow to the American industry. They did receive such secret rebates prior to the Schmidtman Contracts 14 years ago."

Mr. Meadows declared that there is every reason to believe that the German Kalisyndikat is making a powerful effort to prevent the development of an American potash industry. He gave the history of the potash row in 1909 and 1910 to indicate the methods used by the German trust to deal unfairly with the American consumers, declaring that the incident cost the American farmers approximately \$50,000,000.

"The German Kalisyndikat, controlling all of the potash mines in Germany, sold under a certain price agreement to all foreign purchasers. The members of the syndicate, however, got into a dispute over terms when they met on June 30, 1909. The old agreement terminated at midnight on that date."

"American potash buyers were on hand to make new contracts, and when the syndicate members adjourned June 30 without having framed a new agreement, the Kalisyndikat actually no longer existed. Consequently, the Americans made a separate agreement, between midnight and morning, with two of the largest potash mines in Germany owned or controlled by the Schmidtman interests, to supply the American trade with potash at prices 30-40 per cent below the old syndicate prices."

"When the syndicate people found out about it next morning they were furious and tried to brow-beat Mr. Schmidtman into breaking his contracts with the Americans. Mr. Schmidtman stood firm, however, and the syndicate was helpless to prevent him from fulfilling his obligations."

"Almost immediately, however, a move was started to get the German government to interfere. After months of squab-

bling the German potash syndicate finally induced the Reichstag to pass on May 10th, 1910, the law which restored the German Monopoly. This law was so framed as to place a 100 per cent production tax on all potash produced above a certain small minimum. As the Schmidtman mines were the only ones contracted to operate at full capacity, this law operated to tax, at 100 per cent, about three quarters of the production of these mines. No production tax was actually imposed on the other mines."

"It was asserted at the time that this law was passed by the Reichstag with the deliberate intention of destroying Schmidtman's contracts with the American fertilizer industry."

"The American fertilizer men naturally made a vigorous protest and the State Department, then under Secretary P. C. Knox, sent an envoy to Berlin to endeavor to have the law repealed or altered."

"On December 18, 1910, a cabinet meeting was called by President Taft to arrange for a final understanding with Germany. The American efforts, however, failed to bring about a change. The Germans claimed that the law was passed in the interests of 'conservation' of natural resources."

"The Americans threatened with talk of imposing a severe tax on all goods exported to the United States from Germany in retaliation. The Germans sat tight and jeered at the Americans when they failed to carry out this threat."

"After arguments and negotiations lasting more than a year, the American consumers were induced by the syndicate to repudiate their Schmidtman contracts and to buy from it at the old syndicate prices 40 per cent higher. The difference between Schmidtman's price for potash and the syndicate's price before and as restored by the law after the controversy was approximately \$30 per ton of actual potash. The loss to the American farmer consuming about 200,000 tons of actual potash annually was therefore approximately \$6,000,000 or more than \$50,000,000 over the ten year period of the Schmidtman contracts destroyed by this iniquitous retroactive Reichstag law of May 10, 1910."

"Now, the same crowd of German potash mine owners are trying to break up the American domestic potash industry which got a start during the war. If they succeed they'll again hold up the American consumers. However, if the American industry can be given a moderate protection for a few years to enable them to dispose of their product, without being forced to meet the temporary unfair competition due to depreciated currency, they'll then be able to meet German or any other competition in potash under any conditions which the Germans may establish."

"The sources of American potash are in lake brines in the West, in the greensands of the Atlantic Coast States, and in leucite rocks found principally in Utah and Wyoming. These deposits can supply America's demands for thousands of years, and at prices which the Germans cannot possibly meet when the Germans reach the point where they must pay approximately the same as Americans for fuel and labor and when their exchange is more nearly normal."

## WHOLESALE PRICES TOOK UPWARD TREND IN FEBRUARY.

A DISTINCT upward trend of wholesale prices in February, as compared with the previous month, but lower than for February, 1921, is shown in a compilation of the Bureau of Labor Statistics. The increase, which was most pronounced among farm products and foodstuffs, brought the Bureau's weighted index number up to 151 for February, a gain of 2 per cent over the level of the month before, but 9.5 per cent lower than for February, 1921.

Of the 327 commodities, or price series, for which comparable data for January and February were obtained, increases were found to have occurred for 101 commodities and decreases for 102 commodities. In the case of 124 commodities no change in average prices were reported.

### INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES. (1913=100.)

	1921 February.	1922 January.	1922 February.
Farm products .....	129	116	126
Food, etc. ....	150	134	138
Cloths and clothing .....	198	183	183
Fuel and lighting .....	218	183	183
Metals and metal products .....	146	117	115
Building materials .....	221	202	202
Chemicals and drugs .....	178	159	159
House furnishing goods .....	277	214	213
Miscellaneous .....	180	146	150
All Commodities .....	167	148	151



# The Railroad Freight and Labor Question From Different Angles.

Number 5.

**T**HE managers of our railroads are men of broad enough vision to welcome much recent criticism,—preferably fair criticism,—if it shows a reasonable respect for facts, as it stimulates study that inevitably leads to improvement. Judging by what they have accomplished, notably in keeping their properties alive through seventeen years of fasting verging on famine, while all other industries were well fed and fattening, faith is inspired that if initiative is not altogether stifled by such strict regulation they will continue so to operate the railroads that their future will be assured."

The foregoing statement is the closing paragraph in an article in the Atlantic Monthly by Mr. Julius Kruttschnitt, Chairman of the Executive Committee of the Southern Pacific Company.

Surely Mr. Kruttschnitt must have thought that he was writing for very unintelligent people when he presented to the readers of the Atlantic Monthly a statement so wholly incorrect, when he said that during the last seventeen years "all other industries were well fed and fattening."

We presume the seventeen years to which Mr. Kruttschnitt refers must have been from 1905 or 1906 to 1921. Now prior to the panic of 1907 the railroads were crowded to the utmost limit of their capacity with business. They had more business than they could care for, and they were making large earnings. After the panic of 1907 and until well into 1915 the industries of the country were neither well fed nor fattening. They grew lean as the kine of Joseph's day. There was stagnation in industrial life, which revived a little after a few years until the election of a free trade president and congress in 1912. In the next three years there was greater depression in industry than there is today in railroad business. The record of failures in 1914 was far and away the largest in the history of the country, up to that time. During that year the industrial interests of the country were headed for bankruptcy, and most of them would have gone into bankruptcy had it not been for the European War which created a tremendous demand for the products of our farms and factories.

Mr. Kruttschnitt surely cannot be unmindful of the fact that for several years before the war the business depression throughout the country was far worse than is the business depression at present in the railroads themselves. We can only express our amazement; indeed, we know not how to express it strong enough, that Mr. Kruttschnitt has referred to all other industries than railroads as having had seventeen years in which they "were well fed and fattening."

During the war some lines of industry fattened by reason of the tremendous demand from Europe, and later from the United States, for war materials; but the depression in the last two years in industry and agriculture has been greater than the depression in railroads. None of the leading railroads in the country had to make last year such a disastrous showing of losses as the big industrial interests had to show. A few days ago a Baltimore banker said that of 63 statements rendered by business concerns to his bank as to the operations of last year 60 of them showed the net result of the year as losses; and this we believe is very generally true throughout the entire country. Farmers by the millions are bankrupt, and their bankruptcy is permanent for many of them. The railroads may have hard sledding, but they are not going to be wiped out to the extent that the property of millions of farmers has been completely wiped were reduced that that would have such disastrous results

relatively as compared with the earnings shown by the big industrial interests of the country, as well as by the small ones.

If Mr. Kruttschnitt will turn to the reports of the industrial interests which have been coming out since the first of the year he will see a record of losses never equaled in the history of the country; and certainly far greater than anything which the railroads are as yet showing in disastrous operation.

Elsewhere Mr. Kruttschnitt said:

"For the last twenty years all industries except railroads, which were strictly restrained by law, raised prices concurrently with rising costs so that when the 1920 rate increase was finally granted the railroads found themselves without adequate and sufficient surplus of accumulated profits on which to convalesce from the long financial famine through which they had gone."

The business men of the country will be very much surprised to learn that during the last twenty years **all of the industrial interests** have been able to keep ahead of the cost of production by raising their prices concurrently with rising costs. That is a bit of information that nobody but Mr. Kruttschnitt has yet been able to see.

In further discussion of the subject Mr. Kruttschnitt adds: "Although thousands of rates have already been adjusted by the carriers in conferences with shippers, the public has been misled into believing that the stagnation of business is caused by unreasonably high rates, that railroad management is inefficient, and that private control is a failure. Thus the unfortunate coincidence of higher rates and the business depression has in a little over a year changed public confidence and sympathy into suspicion and hostility."

In this case, as in most of the arguments advanced by the railroad people, Mr. Kruttschnitt fails utterly to take into account that freight rates which were bearable by business when business was prosperous and prices were high, cannot possibly be borne after prices have been broken far below the cost of production, as has been the case as to nearly all farm products and as to most industrial interests. The general theory of Mr. Kruttschnitt and other railroad people is that high cost of freight rates does not lessen the volume of freight moving; but against this we would like to put a paragraph from the annual report of the Lehigh Coal & Navigation Co., which states a great truth in one sentence. It is this:

**"The continuance of decreased demand for anthracite during midwinter conditions emphasizes the fact that no matter how essential a commodity may be, its free use is limited by the price charged for it, if that price be out of line with the prices of other commodities."**

Here is the truth stated in a nutshell. Freight rates are out of line with the price of commodities and, therefore, according to the report of the Lehigh Coal & Navigation Co., which has certainly had a good deal to do with coal traffic and railroad operations, no matter how essential a commodity may be its use will be limited by the price charged for it when that price is out of line with the prices of other commodities.

If we could only persuade our railroad friends to realize the truth of that as to their own business, they would test out the matter of developing a larger volume of business by reducing freight rates.

Mr. Kruttschnitt criticizes some suggestions that have been made to the extent that:

"If in railroad operation the same efficiency prevailed as in manufacturing plants \$300,000,000 annually could be saved in

railroad operating expenses. This estimate, incorrectly construed, gathered force as it traveled, and soon became 'a million dollars a day.'"

In the large there is not very much difference between a million a day and three hundred million a year, as most people eliminate 52 Sabbaths in counting upon things of this kind. But while Mr. Kruttschnitt protests against the accuracy of this statement he has doubtless before this read the joint statement by five of the greatest railroad experts in America, including Mr. John F. Stevens, under whose direction the Illinois Central spent about \$100,000,000 to rebuild its system and expand its facilities, who was selected as chief engineer for the Panama Canal, and afterwards as chief engineer for helping the Russians to reorganize their railroad system during the war; and other men of equal standing, including Co. F. A. Molitor, also an engineer of wide experience in investigation of traffic economics, as well as in railroad building; W. L. Darling, consulting engineer, a member of the advisory commission of railway experts to Russia and who had previous long experience in railroad engineering; L. B. Stilwell, another engineer whose work has been extensively along the line of railroad economics as concerned with rolling stock, and W. W. Colpitts, whose experience has covered a wide range in both railroad and industrial fields, he being a member of Coverdale and Colpitts consulting engineers, New York. All of these gentlemen have had broad experience in their profession and especially with relation to the economical construction and operation of railways.

Certainly there is no railroad man in the United States who would undertake seriously, we believe, to question the ability of these men to diagnose the railroad situation. They have issued a report in which they suggest one scheme for the handling of the rolling stock of railroads which they say would save to the railroads of the country \$300,000,000 a year. Mr. Kruttschnitt must disprove their statements and discredit their ability before he can meet that issue. Unfortunately for him, his article in the Atlantic Monthly was published before these great experts issued their report. That report has simply knocked the props completely from under his argument on this question of saving \$300,000,000 a year.

The line of reasoning by Mr. Kruttschnitt is in general based upon premises as erroneous as the one in which he stated that during the last seventeen years all the industries of the country "had been well fed and fattened." No thoughtful business man will read that closing statement of his article without wondering if it is not possible for railroad officials to find some arguments more substantial as a justification for their opposition to an adjustment of freight rates. Surely there must be some better arguments than Mr. Kruttschnitt has put forth, for his are as unsound as is the statement about the "well fed and well fattened" industrial interests for the last seventeen years.

#### NEW TRANSPORTATION DEVELOPMENTS.

**M**R. E. L. THOMAS, president of the Thomas Grate Bar Co., of Birmingham, in a letter to the MANUFACTURERS RECORD gives an account of the remarkable development of the motor bus transportation system in Northern Florida and Southern Georgia centering around Valdosta and Madison. He writes that he was amazed at the network of these buses and the low price that they are charging for transportation. He reports that at Madison, Fla., he found the Georgia & Florida depot a mile away from the Seaboard, with only fifteen minutes between the arrival and departure of the two trains; and if you missed one train you had to wait until the next day. He criticizes the fact that the train leaves Madison before daybreak in the morning, whereas the buses do not leave until seven, eight or nine o'clock, thus catering to the comfort of the people.

At Valdosta there are, he says, three depots from one to three blocks apart. Trains run within five minutes of each other but will not wait for the exchange of passengers.

"Compared with this arbitrary service," writes Mr. Thomas, "by the railroads, the bus lines operating out of Valdosta cover the round trip daily to Fitzgerald, 65 miles away; another to Tifton, 47 miles away, a double round trip service daily to Moultrie, 47 miles away; and a round trip service daily to Milltown, 24 miles away; and another to Sparks, 26 miles away. These busses make all of the intermediate stations and serve the people at convenient hours. Some of these lines are hauling light freight and express, and I am told they are always loaded down." Mr. Thomas writes further:

"These bus lines everywhere were really set up in business by the railroads on account of the arbitrary schedules of the roads and the display of greed for any service that they rendered, such as the surcharge for Pullman fare. That one charge has cost the railroads millions upon millions, and the end is not yet, for I know of no man who ever paid that surcharge and talked about it but what damned it, for you cannot pay it and feel good, for it is an injustice. As a consequence the railroads have driven the people to patronize a competitor of the railroads that the railroads have really started up in business."

Referring then to street railway systems in towns and cities he especially emphasizes conditions in Birmingham, where what he claims as "a public-be-damned policy" of the street railway has caused that city to have a flock of jitneys which the public demands shall be allowed to operate. "These jitneys are taking a toll of more than a million dollars a year from the street car company. \* \* \* \* \* What caused all this? What caused the jitneys to operate? The street car companies set the jitneys up in business as competitors, first, by failure to provide and render service that the people have a right to have, and they are obligated to give but fail to do so, and second, they have raised their rates to eight cents, with two cents for a transfer, making ten cents for a great portion of their passengers. I have mentioned Birmingham because I know how they operate and I know the service they are rendering, and I know what it is costing them in failure to render a service that would be acceptable to and appeal to the public. I am sure other cities are suffering likewise, and likewise the steam railroads, for they all operate on the same system and are serving or failing to serve the same public in different capacities."

These are the views expressed by one of the leading business men of Birmingham and which we are publishing in order that the railroad and the street railway people may understand how the public is feeling.

What Mr. Thomas found in South Georgia and North Florida as to bus transportation is in evidence all over the country. In Florida busses are making points 150 miles distant, and within a radius of 60 to 70 miles there are two or three round trip bus trips daily from many of the progressive towns of that state. Similar conditions are existing in Maryland and elsewhere, and the railroads are losing a very large proportion of their passenger traffic because the people are turning away from their high passenger charges to the bus lines, even though in some cases the bus line charges more per mile than the railroad charges.

Other men are doing their best through the use of automobiles for long distances and short distances alike, to get away from railroad travel. This is a problem the magnitude of which the railroad people have not yet understood.

The highways, are open to every man who can own or run an automobile or a motor bus. Their movements are independent. They cater to the individual's comfort, whether he runs his own car or uses a motor bus. Thousands of places not reached by railroads are now being brought into contact with the world by the motor bus and the automobile.

Civilization has made a great leap forward through the invention of the gasoline engine and the building of improved highways. We are into a new epoch, and no man can tell what mighty changes it will bring. Some people are even predicting that the airship will to a large extent become a competitor with the railroads even for freight traffic.

# Concentration of Southern Iron Ores.

## POSSIBILITIES WHICH SHOULD BE INVESTIGATED.

BY COURTENAY DEKALB.\*

Two Gulf ports, New Orleans and Mobile, are rapidly becoming distributing points for steel. Exorbitant railroad freights are forcing Pittsburgh producers to seek advantageous markets that can be reached by water. Recently large shipments of steel products, destined partly for export have been made by barges down the Ohio and Mississippi rivers, and the success of the experiment has led to the construction of a fleet of barges to be employed in this commerce.

If high rates of freight have brought no other advantage, they will at least have served a useful purpose by directing public attention to the supreme importance of natural inland waterways, and this must encourage appropriations for their further improvement. At the same time, this new outlet for steel products from Pittsburgh to a Gulf port, seems to entail to some extent an equalization of the advantages enjoyed by the Birmingham District in Alabama. That the effect of this southward movement by water of Pittsburgh steel does represent an equalization is indicated by the fact that these shipments come in part from subsidiaries of the United States Steel Corporation, which would constitute injurious competition with another of its subsidiaries, the Tennessee Coal, Iron and Railroad Co. of Birmingham, if underselling were the object of shipping from Pittsburgh to New Orleans. The latter company has at command and uses the Warrior River, which has been canalized by the Government, and ships products by barge to Mobile and New Orleans. The products from these two sources must therefore meet at the Gulf on a practically uniform basis of cost, else it would be unprofitable to seek an outlet from Pittsburgh by water. Back of these considerations may lie reasons of policy also, but in the end such reasons are necessarily economic, and the net result is competition. To the producer outside of the United States Steel family it can mean nothing else. Some of the biggest independent steel companies are also shipping down the Mississippi River.

As against this lies the fundamental problem of ore-supply and of relative grades of ore measured by costs per ton of metallic iron delivered to furnace. While changes in freight rates no doubt have disturbed the older ratios somewhat, comparisons based on pre-war conditions are substantially correct today. In 1910 (Report of the Commissioner of Corporations, Part 2, Cost of Production, Jan. 22, 1912) the book-cost, excluding intermediate profits, of net metallic mixtures smelted at Birmingham, per ton of pig iron, was \$2.88, against \$5.28 for northern basic iron, with which the Alabama iron is properly compared. The respective coke-costs were \$3.80 for Alabama, opposed to \$3.31 at Pittsburgh, the higher rate at Birmingham being due mainly to the larger proportion of coke required in smelting. An important part of this excess coke consumption is necessitated by the higher silica-content of the Alabama ores. In other words, it involves higher heat-absorption on account of the excess of fluxing ingredients present in the mixture.

This brings into relief the importance of lowering the silica, to which end the possibilities of economic concentration require to be carefully investigated. It must be said that enormous tonnages of the so-called self-fluxing ores in the heart of the red-ore belt will never be concentrated. While only limited portions of this choicer area of strictly self-flux-

ing, as a whole they are close enough to that desirable line so that only about 20 cents per ton of the pig-iron cost (pre-war basis) represents an addition of limestone for fluxing the excess of silica in the ore as mined. Outside of this "self-fluxing" zone are great quantities of more siliceous red-ore. This cannot be utilized unless it can be improved by concentration. In so far as that can be done, yielding a nodulized or sintered ore of high metallic content, its admixture with the normal "self-fluxing" ore will raise the percentage of iron in the furnace-mix, will reduce the consumption of lime per unit of iron, and will correspondingly reduce the proportion of coke as well as the labor-costs per ton of output. Owing to the low cost of ore delivered, the addition of concentration costs cannot bring the total anywhere near the cost of Lake ores laid down at the Pittsburgh furnaces.

The cost of ore at the mine in the Lake District during the past season was greater than the cost of ore in the Birmingham district delivered at the furnace. According to a statement by John A. Topping, chairman of the Board of the Republic Iron and Steel Company in his testimony at the recent Chicago hearing on Upper Lake iron ore rates (The Iron Age, December 15, 1921), the delivered cost of Lake ores at Pittsburgh was \$7.16 per ton. Lake ores have for many years shown a steadily decreasing metallic content, and last season it stood at approximately 54 per cent. The evidences are that the percentage of iron will continue to lessen, until present plans for concentration on a large scale in the North admit of shipping a richer product, which will raise the average, but at an additional expense for concentration. The balance still swings in favor of Birmingham, even if concentration is there practiced. Experiments now in progress by the Bureau of Mines will soon throw light on the possibilities of making a high-grade concentrate from the siliceous Alabama red-ores. The character of the material is such that relatively high losses in iron have been predicted, but there is reason to believe that the tests will prove successful.

The most favorable opportunity for producing a high-grade concentrate with small loss of iron, however, seems to be presented by the gray hematites of Talladega County, Alabama, only 50 miles from the metallurgic center of Birmingham, and still closer to the furnaces at Gadsden and Alabama City, and next door to the furnaces of the Shelby Iron Company. The outcrops extend for a distance of 20 miles, somewhat interrupted by block-faulting. The exposures that have been most studied parallel the Louisville and Nashville Railroad (branch from Calera on the main line to Anniston) and the town of Sycamore lies nearest the chief openings. For a distance of 9 miles the beds are exposed by numerous shafts and cuts, showing a thickness of about 8 ft. on an average. These ores have been described in detail by Philip S. Smith in Bulletin 315 of the United States Geological Survey. Their special importance lies in the large indicated tonnages, running into hundreds of millions, and in the fact that the hematite exists in such a form that it readily breaks free from the associated quartz. Dr. Smith (Bull. 315, p. 175), describing the character of this ore, says: "Thin sections of the ore contain, in addition to the iron minerals, a great deal of quartz, which is the main source of the silica content. There is some feldspar, mainly soda-lime feldspar, although there is also some microcline (a potash feldspar). Mica as a secondary product is represented by scattered blades of muscovite. Biotite is practically absent. Some chloride, secondary after mica, is found, but is not abundant. The main constituents of the

\* Mr. Courtenay De Kalb, distinguished engineer, chemist and technical expert, is particularly well qualified to discuss this subject. He has had practical experience as a mining engineer in various places in this and other countries, and has been an educator and voluminous writer on scientific matters. He is an honorary member of the Geographical Society of Peru, a member of the American Institute of Mining and Metallurgical Engineers and of the American Chemical Society.



ore are quartz and iron. The hematite is in scaly and apparently sheared aggregates, while the magnetite is generally in well-formed, sharp crystals, which have apparently been formed later than the hematite. In a very few thin sections iron sulphide has been recognized." He gives the average silica content in 23 analyses as 19 per cent, and the iron as 50.67 per cent.

From personal studies of these ores made in 1921 it appeared that the quantity of magnetite increased toward the northeastern end of the outcrop, at the Emauee mine. This ore contained very little feldspar and more free quartz. The quartz broke quite free from the iron minerals, and an exceptionally clean magnetic separation of the quartz from the magnetite was effected. Several miles distant, at Heacock and Riser mountains, the ore was thinly laminated, the bands generally being from 0.5 to 1 millimeter thick, giving to it much the appearance of a schist, the iron being largely in the form of miscellaneous scales, with interspersed grains of magnetite. Crushing the ore to pass a one millimeter opening released practically all of the iron minerals. It is evident that table concentration would be efficient on material of this character. Except for the ores in the vicinity of the Emauee mine, magnetic separation apparently would not yield advantageous results. The reason for this is found in the occurrence of a portion of the magnetite enveloped in secondary quartz. This would follow the concentrate and raise its siliceous content. The same difficulty is experienced with the red-ores from Red Mountain at Birmingham. The tailing, after concentration of the red ores on Wilfley tables, shows a large proportion that can be lifted out with a magnet. The gray ores, however, seem to be more amenable to treatment on tables than the red ores, and it should not be difficult to raise the tenor to 60 per cent, leaving a concentrate remarkably free from silica. Dr. Smith mentions chloritization of the mica only, but my observations show that the feldspars have also undergone very general alteration, and these would form a certain amount of slime that would in part follow the concentrate. Such material would be less objectionable than the quartz, as it consists of alkaline silicates, which would promote fluidity of the slag.

A detailed study of the possibilities of concentrating these gray ores would be of immense importance. If successful the result would be to offer a virgin field of enormous size as a source of supply for the future development of large steel-producing companies. The expansion of steel-making in the Birmingham district is the logical course to be followed in building up the enterprises on which diversity of manufacturing on a great scale depends. A prime essential to encourage initiative in such projects is the assurance of an adequate supply of ore for broadly competitive industry. The improvement of the red ores is only part of the problem. The demonstration of the availability of the Talladega gray ores, as a source of high-grade concentrate, would add new strength to the situation and profoundly influence the future investment of capital to undertake wider activities.

#### **Lumber Mill to be Used for Hardwood.**

Houston, Tex., March 16—[Special.]—The Voth Hardwood Co., which has acquired a mill at Voth, Tex., with a daily capacity of 100,000 feet will operate the original mill which until a few days ago was used by the former owners for cutting pine lumber. The company will maintain general offices in the Great Southern Life Bldg., Houston. Its officers are: President, B. F. Bonner; vice-president, W. B. Burke; secretary and general manager, W. C. Keith; treasurer, J. T. McCarthy. Mr. Burke and Mr. Keith will maintain offices at Voth.

#### **Cost of Producing Farm Products.**

Extension Bulletin 49 issued by Clemson Agricultural College, Clemson College, S. C., cooperating with the United States Agricultural Department gives methods of determining the cost of production of farm products, with examples for leading South Carolina crops. In the summary of the Bulletin it is stated that the usual elements of cost in order of importance are labor, fertilizer, land, miscellaneous, seed, and materials.

The total cost per acre for an average yield of cotton is estimated at \$60 when the usual basic requirements are considered and when normal prices are used. Normal prices. In this case, it is supposed being those of the prewar level. For an average yield of corn the total cost per acre is about \$25. For an average yield of peanuts the total cost per acre is about \$15. The farmer is cautioned to look to his labor record with a view to reducing the cost of production. Fertilizer should rarely be used in amounts less than normal, as it so directly affects yield. Careful buying, careful mixing, and careful use of fertilizer is urged.

The average farmer who secures yields of a bale to the acre of cotton, over 25 bushels to the acre of corn, over 1250 pounds to the acre of peanuts, and over 20 bushels to the acre of oats, based on the figures compiled, will make a fair profit on these crops provided sufficient management and good judgment is exercised.

The Bulletin contains blank forms which are adaptable for use in connection with crops and livestock to determine costs and profits.

#### **Cotton Growing Demonstration Under Boll Weevil Conditions.**

Arlington, Ga., March 18—[Special.]—A demonstration of successful cotton growing under boll weevil conditions will be made this summer on a 5000-acre farm here by the Armour Fertilizer Works. Dr. R. J. H. DeLoach, director of the bureau of research, will be in charge. J. E. Sanford, vice-president of the company in charge of the Southern division believes that the best way to show the cotton farmer how to fight the boll weevil is by actual demonstration, efficient cultivation, proper fertilization, good seed and good management, will be strikingly emphasized.

The plan is designed to show that by reducing the acreage and properly preparing the land more cotton can be grown per acre and the control of the weevil be rendered easier. The land is broken up into units like most cotton growing areas, and if the weevil can be controlled on this large area it is believed that it can be controlled on any land in the state.

#### **Large Increase of Loaded Cars.**

There were 803,255 cars loaded with revenue freight during the week ended March 4, an increase of 67,969 cars as compared with the previous week, according to figures of the car service division of the American Railway Association. It must be noted, however, that the previous week included the holiday of February 22. This increase of loadings was due principally to heavier traffic in merchandise and miscellaneous freight, which includes manufactured products, and also coal. The total for the week was an increase of 91,888 as compared with the same week a year ago and it was also the largest for any week since November 5 last.

Valuation of 372 building permits issued at Birmingham, Ala., last month was \$1,189,576 compared with the valuation of \$462,520 for 490 permits issued during the same month last year. Residence permits numbered 103 involving the expenditure of \$231,035.

## Signs of Prosperity South.

### Capacity of Rolling Mill To Be Doubled.

Birmingham, Ala., March 18—[Special.]—The Gerson Rolling Mills, East Birmingham, producing 8-inch merchant bars, will be doubled in size in the next 60 to 90 days, machinery now being enroute from Chicago territory for a 16-inch bar mill. The concern has a patent re-inforced concrete bar which is to be manufactured at this plant when the new machines are installed. A specialty in the way of a fence post is being manufactured, also at a cost not much in excess of wooden posts. It is estimated that \$75,000 will be expended in the development and the plant when in full operation will provide employment for 75 to 100 men and will cater to a growing trade throughout the South, railroad axles and shafting to be used in the melting. All the bar manufacturing mills of this district are doing well at present.

### Smelting Plants to Resume on Large Scale.

The American Smelting & Refining Company has contracted with the Erupcion Mining Company and the Ahumada Lead Company, Chihuahua, Mexico, for the smelting of lead ore of the Mexican Companies' mines. This means the resumption of operations on a large scale at the American Smelting & Refining Company's plant at El Paso, Tex., and the employment of several hundred men. A repair crew is putting the lead furnaces into condition for operation, and work on the railroad from the mines, which are situated in northern Mexico, is being pushed. Shipment of from 200 to 400 tons of ore per day from the mines to the American Smelting plant is promised by the Mining Companies upon completion of the railroad, which is expected about April 1.

### 7,500 Acres Irish Potatoes Planted—Estimated Crop Value \$1,000,000.

Atmore, Ala., March 18—[Special.]—Approximately 7500 acres of Irish potatoes have been planted in this district, according to a survey completed by railroad officials who will supply the cars for moving the crop to various parts of the United States and Canada. The estimated value of the crop is \$1,000,000. More than 70,000 bushels of seed potatoes, or 100 car loads were required to plant this acreage. Each acre was provided with 1500 pounds of fertilizer, of much higher grade than formerly used. The total acreage of potatoes planted in Alabama and West Florida is approximately 15,000.

### \$1,000,000 Drainage Operations to Begin.

Beaumont, Texas, March 18—[Special.]—By April 1 the Howard-Kenyon Dredging Co., of Houston, and J. E. Broussard, of this city, will be at work in full swing on the \$1,000,000 drainage project for the northern half of Jefferson county. A steel floating dredge has been launched in the north fork of Taylor's Bayou, and the machinery is being installed rapidly. This dredge will work north of the Gulf and Interstate track for approximately two miles and then south to the limit of the district. A walking dredge will take care of the work on the upper section.

### \$2,000,000 Sewer Construction Program.

Milton J. Ruark, Division Engineer of Sewers, Baltimore, states that the City's program this year contemplates the expenditure of approximately \$2,000,000 for the construction of sanitary sewers and storm water drains. Contracts will be advertised from time to time, including one in the near future for a sewer system in Govans and another for the extension of a large storm water drain in the northern part of Highlandtown. This latter drain will be approximately 10 feet in diameter and from 1500 to 2000 feet long.

### Builds Two All Steel Troop Ships.

Charleston, W. Va., March 13—[Special.]—The Charles Ward Engineering Works, here launched an all steel troop ship last week for the Federal Government. It is the John M. Cox; a sister ship, the General John McHyde will be launched in the near future. Upon completion the ships will be taken down the Kanawha, Ohio and Mississippi rivers to the Gulf, through the Panama Canal and up the Pacific coast to Puget Sound where they will be put in service. They are 150 feet long, 28 feet wide and have three decks. Each is equipped with two triple expansion engines driving four blade, steel propellers, giving a good speed. The boilers are oil fired.

### Building and Industrial Activity Show Continued Improvement at Baltimore.

In line with the general speeding up of building activity in the Baltimore section, established industrial plants are increasing their output and new plants are being rapidly completed in order to be placed in operation in the next few weeks.

The first cargo of raw material from Cuba arrived at the big refinery of the American Sugar Refining Co. last week and other cargoes will follow in regular schedule. The refinery, which was erected primarily to secure a more economical unit both in operation and maintenance, is thought likely to fulfill these expectations. In its construction a full year was saved as against the time taken for the building of any other refinery of similar magnitude. Ground was broken about two years ago.

The Eastern Rolling Mill Company's large plant is now operating at 70 per cent capacity, according to J. M. Jones, president. Orders are in sight for operation throughout this and next month. Previously the plant was running at about 25 per cent capacity. In January and February about 250 men were engaged, while now 800 persons find employment. The increased activity started February 1 and conditions are getting better every day according to Mr. Jones.

The sheet and tinplate mills at Sparrows Point are operating slightly above the average of a normal year and inquiries are coming in at a better rate than for more than a year. The steel plant of the Bethlehem Steel Co. is operating at about 50 per cent capacity, an improvement of 10 per cent over December, 1921. A turn for the better came in January and business picked up, but during the short month of February there was a slackening. March has started out at fine rate and is going steadily ahead. Upwards of 3000 men are employed, about equal to the number engaged in December, but they are working more regularly than for some weeks. Officials at the plant believe that the foundation for a revival in the steel industry has been laid. With the sheet and tinplate mills being called on for better than average production, with inquiries numerous and railroads again coming into the market, the outlook is reported encouraging.

Work on the new plant of the Cook-Nut Corp. in the Canton section, which will produce lard substitutes, etc., from peanut and cotton seed oil, is proceeding rapidly. Similarly work is advancing on the new plant of the Maryland Steel Rolling Co. plant in the eastern section of the city. Progress has been steady upon the additions and improvements to the Western Maryland Railway elevator at Port Covington.

House building is going steadily forward. Several large apartment houses are under construction, as well as a number of theatre buildings, and plans for similar structures are under way.

### Coal Production Increasing in Alabama.

Birmingham, Ala., March 18—[Special.]—With the blowing in of blast furnaces and greater consumption by railroads, coal production in this state continues to increase. In the first week in January production was 220,000, the first week of March 280,000 tons. Coke is very active, and two markers, one by-product and one beehive, report orders in hand for capacity production.

The American Cast Iron Pipe Co. has booked 3000 tons of pipe for Seattle. This will be shipped via Mobile. The McWane Iron Pipe Co. has made additional bookings for Honolulu. During the week two shipments each of 3000 tons went to the Pacific.

### Three New School Buildings Planned.

Salisbury, N. C., March 18—[Special.]—Plans have been prepared for three school buildings for this city by W. C. Northup, architect, Winston-Salem. Work will be started in the near future. A school for colored children containing 12 rooms and an auditorium, an addition to the Innis Street school of 10 rooms, and an addition of four rooms and a gymnasium for the North Main Street school are included. All the buildings will be of brick with asbestos shingle and Barrett tar and gravel roofs.

### Top Price for Pure Bred Hogs.

Berryton, Ga., Mar. 14.—[Special.]—At a sale held recently at the Berryton Duroc Farm, owned and supported by The Berryton Mills, in the heart of the cotton belt, 49 hogs were sold at auction and private sale, at an average price of \$87.50 each, according to John M. Berry, proprietor, who says that in his opinion this is the highest prices ever offered for Duroc hogs in the South. The sales were made to farmers and hog breeders from widely separated parts of Georgia and Alabama.

### \$475,000 University Buildings Planned.

Columbia, Mo., March 21—[Special.]—Plans will soon be ready for three stone buildings to be erected on the east campus of the university of Missouri at a cost of \$475,000. Proposals for the construction of these buildings will be received by the Board of Curators on April 10. The structures include agricultural buildings, women's gymnasium and a chemistry building. James P. Jamieson and George Spearl, Arcade Building, St. Louis, Mo., are the architects.

### Dwellings Predominate in Atlanta Building.

Atlanta, Ga., March 11—[Special.]—The most significant feature of this city's February building program with a valuation of over \$1,047,000 was the extent to which dwellings figured in the total. Of these there were 187 projected within a 23 week-day period. Many building plans are now in the hands of architects and builders and the prospect for continued activity is good.

### \$425,000 Hospital Planned—Bids Asked.

Oklahoma City, Oklahoma., March 18—[Special.]—Bids will be received March 25 for construction of a hospital for the Soldiers Relief Commission. Plans were prepared by Charles P. Neider, architect and consulting engineer, of this city, and the hospital which is a 5-story structure, 208 by 115 feet will necessitate the expenditure of \$425,000.

### Sewer and Water Bonds Sold at Premium.

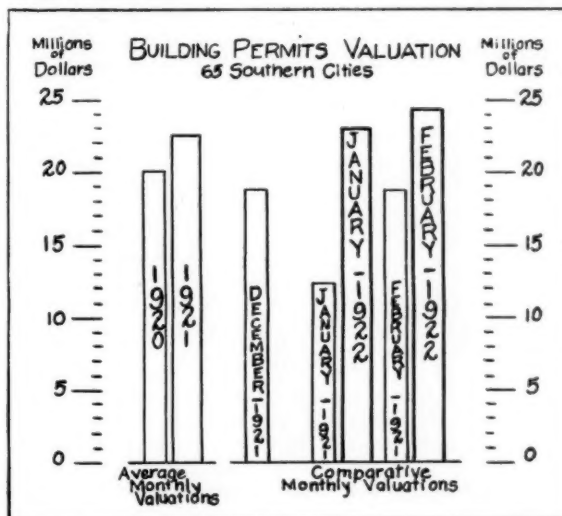
Asheville, N. C., March 18—[Special.]—Six bond issues of this city were sold this week to the American Trust Co., of Charlotte, whose bid totaled \$556,020, bringing a premium of \$11,020. Eleven bids were received for the bonds which will provide money for sewer and water extensions, paving and a new fire station.

### Southern Construction Activity Emphasized by Steady Increase in Building Permit Valuation.

The accompanying chart showing the valuation of building permits in 65 representative Southern cities emphasizes clearly the splendid progress which the South is making in construction work. This is given additional weight, if considered in connection with the figures published two weeks ago in these columns, showing the large sums involved in recent contracts let and new projects planned.

Building permits for February had a valuation of \$24,493,669, compared with \$18,661,663 for the same cities in the second month of 1921, thus recording an increase of over 31 per cent, as well as an increase of \$300,000 over January, 1922. January building permits showed an increase of 20 per cent over the preceding month, and an 85 per cent increase over the first month of last year.

Reports from 65 representative cities show a valuation of permits issued in 1920 of \$244,802,797 and of \$266,507,981 for 1921, giving a monthly average of \$20,400,240 for 1920 and \$22,507,981 for 1921. Thus, it is seen that the January and



February permits valuations this year exceed the high average figures for both 1920 and 1921, the banner years in construction activity. And the increased activity is the more remarkable when the season of the year is considered. The demand for buildings of practically every kind is yet unsatisfied and the program has yet to attain its height, although it is believed that by April the general program will be in full swing.

The record for February is indeed astonishing considering the short month, and the high total valuation set by January activity. Building valuation South is on a better level and further advanced than in other sections of the country, as shown by a direct comparison of contracts awarded and to be awarded as well as building permits valuations.

The interesting figures below show at a glance the big construction movement now under way in the South.

BUILDING PERMITS 65 cities.			
	1922.	1921.	1920.
January .....	\$22,997,270	\$12,328,360	
February .....	24,493,669	18,661,663	
Average Monthly Valuation .....	\$20,400,240	\$22,507,981	

CONSTRUCTION PROJECTS. Contracts Awarded.			
	1922.	1921.	1920.
January .....	\$21,143,479	\$8,107,757	
February .....	35,774,174	14,350,944	
Contracts to be Awarded.			
January .....	\$64,720,995	\$21,209,800	
February .....	91,379,637	30,920,254	



### **\$300,000 Vegetable Oil Refinery Nears Completion— Thoroughly Modern Plant to Have Daily Capacity of 60,000 Pounds of Finished Product.**

The Cook Nut Corporation, a Baltimore concern with a capital of \$500,000 is erecting at Fifteenth St. and First Ave., in the Canton section, a \$300,000 plant for the manufacture of high-grade lard substitutes, cooking and solid oils. The initial unit will have a capacity of 60,000 pounds of finished product daily.

The entire plant is of reinforced concrete construction, with steel sash throughout, with a roof of concrete slab design covered with tar and gravel. The machinery layout has been made after careful study to reduce handling costs to a minimum.

The main building is 56 by 112 feet, of one, three and five stories in height and houses the complete manufacturing department, package, storage and cooerage units. The boiler room is 50 by 56 feet and 42 feet to the peak. The engine room 48 by 48 feet, contains the refining and refrigerating machinery.

Steam for processing and heating is furnished by two return tubular boilers made by the Erie City Iron Works, Erie, Pa., having a combined capacity of 300 horse power. In connection with these boilers a Foster superheater made by the Power Specialty Co., New York City, is used.

Refrigerating equipment is furnished by the Brecht Co., of St. Louis, Mo., an ammonia compression system being used, with an output of 36 tons daily. About 30 pumps of various sizes up to 800 gallons per minute supplied by the Worthington Pump & Machinery Corp., New York, are in use. To supply water to the plant for domestic purposes and fire protection a 30,000 gallon steel tank will be placed on a 25 foot tower upon the roof of the building, 85 feet above the ground. This will be supplied by the Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa. A sprinkler system will be installed. The electric power and light installation is being handled by the Blumenthal-Kahn Electric Co., of Baltimore, and all of the equipment will be electrically operated.

Chas. L. Stockhausen Co., Baltimore, is the general contractor for the buildings. In their construction about 2400 cubic yards of reinforced concrete were placed, 350 tons of reinforcing steel and 25 tons of structural steel were used. Dietrich Bros., Baltimore, furnished the structural steel, Concrete Steel Co., 42 Broadway, New York, and the Truscon Steel Co., Youngstown, O., furnished the reinforcing steel, while the latter firm supplied the steel sash. An elevator for handling freight with a capacity of two tons will be installed by the Warsaw Elevator Co., of Baltimore. The stairways are all of reinforced concrete construction with non-slip steel treads, and fire doors are used at each landing and at other places in the building, these being supplied by the Coburn Trolley Track Manufacturing Co., Holyoke, Mass. Rolling doors made by the Kinnear Manufacturing Co., Columbus, O., are provided along the shipping platforms. To aid in the efficient handling of the product conveyors are used wherever possible. These are manufactured by The Dow Co., Inc., Louisville, Ky.

The buildings and layout were designed by Frank Zverina, engineer in charge of construction who will be general manager of the completed plant.

Work was started about the middle of last September and the plant will be in operation in May.

### **Laundry Wanted.**

According to Mrs. E. R. Minus, there is an opportunity at St. George, S. C., for opening a good laundry. In a letter to the MANUFACTURERS RECORD she says: "St. George has 1500 population, water and lights, and is just beginning to be a real town, and I feel sure that this would be a good place for a progressive laundry."

### **Plans for Four School Buildings at Goldsboro.**

Goldsboro, N. C., March 17—[Special.]—Plans are being planned by John D. Gullett, architect, Goldsboro, N. C., for four school buildings to be erected here. They will be of brick and frame construction, with wood floors, heated by steam and electrically lighted. Two will be of six rooms and assembly hall, the third will be a high school building containing 12 rooms, assembly hall, manual training and domestic science department. The other is a four-room addition to the primary school. Bids will be asked about April 1.

### **Big Spurt in Building at Knoxville.**

Knoxville, Tenn., March 18—[Special.]—Building permits for the last three days of last week eclipsed all previous records in amount of money involved and in number also, according to C. M. Thompson, inspector of buildings. During the three days 33 residence permits were issued representing construction to cost \$107,000, not including 22 permits for repairs. The first ten days of the month broke all previous records, including 55 permits for new houses.

### **Parsonage and Church Buildings.**

Chapel Hill, N. C., March 20—[Special.]—Plans are under way for erection of a parsonage. Sunday school building, social hall and church auditorium involving the expenditure of \$180,000, according to Walter Patten. Plans for the parsonage are being prepared by Fred J. Orr, Athens, Ga.; for the other buildings by James G. Rogers, 367 Lexington Ave., New York City. All of the buildings with the exception of the parsonage will be of brick construction.

### **\$1,500,000 in Memphis Building for February.**

Memphis, Tenn., March 11—[Special.]—Permits for building valued at \$1,529,610 were issued here last month, compared with \$303,924 for the same month last year and \$579,200 for January, 1922. This included 113 houses, 96 of which were one family dwellings. The Snowden office building will contain 300 offices, and will cost approximately \$750,000. Ten stores were authorized at a cost of about \$60,000.

### **\$750,000 Hotel for Raleigh Under Contract.**

Raleigh, N. C., March 18—[Special.]—C. V. York Construction Co. has been awarded contract for a \$750,000 hotel after plans prepared by James A. Salter and W. L. Stoddart, architects. It will contain 240 rooms with all modern conveniences. Two passenger and one service elevator will be installed. The Raleigh Construction Co. are the owners.

### **\$1,000,000 School Bonds Sold.**

Louisville, Ky., March 28—[Special.]—J. B. Hilliard & Son were the successful bidders for \$1,000,000 school bonds offered by the Board of Education this week. The bid made jointly with Eldridge & Co., of New York, was \$1,108,100, the highest of 20 bids submitted by firms in various sections of the country.

### **Graphite Mill in Ashland Resumes.**

Birmingham, Ala., March 18—[Special.]—Owing to better market conditions the Dixie Consolidated Graphite Co., at Ashland, has resumed operations with a fair tonnage of orders on hand. The market is in good condition, and it is felt that the operation of the plant for a long period is assured.

### **Apartment House Proposals Invited.**

Charleston, S. C., March 18—[Special.]—Proposals for construction of the Berkley Court Apartment, plans for which were prepared by G. Lloyd Preacher & Co., architects of Atlanta and Augusta, Ga., will be received until April 4 by Edward J. Murphy of this city.

### Refinery Statistics for 1921.

On January, 1, 1922, there were 303 refineries, with a total daily indicated capacity of 1,736,725 barrels, operating in the United States as compared with 328 operating plants having a daily indicated capacity of 1,714,395 barrels on January 1, 1921. These plants were operating on a basis of 80 per cent of their indicated capacity on January 1, 1922, and 84 per cent on January 1, 1921.

The Geological Survey reports the estimated production of crude oil in the United States for the year 1921 as 469,639,000 barrels, indicating a daily average production of 1,286,682 barrels. The Survey also estimates the total consumption of domestic and imported petroleum for the year 1921 as 525,407,000 barrels or an average of 1,439,471 barrels per day. It will be observed that the indicated daily average capacity of the refineries in operation in the United States as of January 1, 1922, exceeds the daily average of domestic and imported crude consumed by approximately 300,000 barrels. No account is here taken of the many inoperative refineries in the country at the present time.

During the year 1921 the petroleum refineries of the United States ran 75,325,670 barrels of Mexican crude oil; 2,745,015 barrels of Mexican tops and 160,557 barrels of Mexican crude naphtha through the stills. The Mexican crude ran during the past year exceeded that of 1920 by 19 per cent.

THE FOLLOWING FIGURES ON GASOLINE ARE OF INTEREST:

Total production 1921	5,153,549,318 gal.
Daily average	14,119,313 "
Total production 1920	4,882,546,649 "
Daily average	13,340,291 "

Increase in production 1921 over 1920	271,002,669 gal.
Average daily increase	742,473 "

On December 31, storage of gasoline was 586,087,132 gallons, this being a little over 10 per cent of the output for the year. Storage the last of 1920 was 123,705,000 gallons less than for the end of the past year. Domestic consumption of gasoline for 1921 exceeded 1920 by 260,000,000 gallons. Exports and shipments for 1921 amounted to a daily average of 1,511,000 gallons. This figure is 283,000 gallons less than the daily figure for 1920, but 463,000 gallons in excess of the daily average for 1919.

Production of kerosene for 1921 indicates an average daily production of 5,329,113 gallons as compared with 6,339,059 gallons for 1920. Total domestic consumption for the past year was 1,240,550,811 gallons, which shows a daily average consumption of 3,398,769 gallons. The daily average consumption for 1920 was approximately 3,820,384 gallons or about 421,000 gallons more than for 1921. The daily average of exports and shipments also show a decrease during 1921, the figures for the past year giving a daily average of 2,072,980 gallons, as compared with 2,371,913 in 1920. Stocks of kerosene on hand December 31, 1921 were 52,062,369 gallons less than for the corresponding date of 1920.

Gas and fuel oil production for 1921 shows an average daily increase of 2,264,000 gallons over 1920. The daily average domestic consumption of this product for the past year was 19,398,000 gallons as compared with 18,320,000 gallons for 1920. Exports and shipments for 1921 show a daily average of 5,724,940 gallons as compared with 5,555,744 gallons in 1920. Stocks on hand at the end of December were 1,331,265,439 gallons, an increase of 493,861,025 gallons over stocks at the end of 1920.

The daily average production of lubricating oils was decreased by 455,000 gallons during 1921. Domestic consumption of this product shows a daily average decrease of 213,000 gallons during the past year. The daily average of exports and shipments was 798,200 gallons. A comparison with 1920 indicates a daily average of 1,130,476 gallons as exported and shipped during that year. Stocks on hand the last of 1921 were 216,765,516 gallons, or approximately 25 per cent of the yearly output.

### Peanut Oil Prices Rise—Peanut Exports Increase, Imports Drop.

A sharp advance in peanut oil prices is reported by the Agricultural Department. By February 28 the price had advanced to 10¼ cents a pound in the Southeast and 11½ cents a pound in the Southwest, with demand heavy and market strong. Millers feel that peanuts are worth more for oil than for shelled stock at these quotations and it is expected that a large volume of peanut stocks on hand in the South will be worked up for oil and meal.

The increase in peanut oil prices has been reflected in the considerably higher prices asked for farmers' goods. On February 28, mills were paying \$70-\$73 per ton, delivered, for farmers' grade Spanish in Georgia and Alabama, and \$67-\$67.50 per ton, delivered, for Runners. Probably only five per cent to ten per cent of the Spanish crop in the Southeast is still unsold and practically no Runners are now obtainable. This scarcity of peanuts, coupled with the rise in the price of oil, has caused speculators to become active in some sections. Considerable inquiry is reported as developing for farmers' stock in Middle Georgia and some sales have been made to growers in that section for planting purposes.

The imports of peanuts for the calendar year 1921 have recently been tabulated. The grand total, 40,163,962 pounds, compares with a total of 119,513,435 pounds for the calendar year 1920, a total of 29,847,041 pounds for the calendar year 1919, and a total of 47,989,230 pounds for the fiscal year ending June 30, 1921. As usual the Orient accounted for all but a very small proportion of the 1921 imports.

Exports of peanuts showed a slight increase during the calendar year 1921. Total export figures amounted to \$14,492,625 pounds, compared with exports of 9,366,434 pounds for the preceding year. Canada, with receipts of 12,215,708 pounds, compared with 7,283,559 pounds in 1920, was again the leading receiver of peanuts from the United States.

During 1921 more than 3,000,000 pounds of peanut oil were brought into the United States. Over half of this came from the Orient, but France, England, and the Netherlands were responsible for 1,400,000 pounds. During 1921 a total of 1,700,000 pounds were exported, of which all but 45,000 pounds went to Norway, Mexico, Sweden and Canada.

### Berry Crop Brings Over \$500,000.

Plant City, Fla., March 18—[Special.]—The berry crop this season is the biggest in the history of this section, and another month remains for shipping. More than half a million dollars has been paid farmers in this vicinity for berries, and the movement to date totals over 1,500,000 quarts. An average price of about 33 cents has been paid.

The steady growth of the industry is demonstrated by the following totals for four seasons:

	Quarts.	Value.
1921-22	1,505,913	\$507,285.47
1920-21	1,346,581	470,523.73
1919-20	1,054,832	412,899.24
1918-19	434,422	181,826.08

### Awarded Contract for Hospital and Church Building.

Roanoke, Va., March 18—[Special.]—J. H. Barbour & Sons have been awarded contract for erection of a general hospital for the Roanoke Hospital Association at a cost of \$150,000, and also for construction of a Sunday school building for Trinity Church M. E. South at a cost of \$45,000. The hospital will be 42 by 152 feet, four stories high, with steel frame and brick walls, after plans by H. M. Miller, architect. The Sunday school building will be three stories high, 48 by 100 feet, of semi-fireproof construction.

The War Finance Corporation announces that from March 13 to 15, inclusive, it approved 96 advances, aggregating \$2,312,000 for agricultural and livestock purposes, \$907,000 of which went to Southern and Southwestern States.

## NEWS AND VIEWS FROM OUR READERS

[Publication in this department of letters from our readers does not mean that we either approve or disapprove the views expressed. We believe in a full and frank discussion of the mighty questions of the hour, for only in this way can the truth be found. Therefore we often publish letters with which we do not agree.—Editor Manufacturers Record.]

### A New Financial Plan Suggested.

F. Y. PONDER, Cuervo, N. M.

I find one weakness in the article by Mr. George H. Walker of New York in your issue of December 15, "Our 'Elastic' Currency System." I find this fatal weakness in the remedy he offers for our fatal financial condition in which he proposes the abolition of our Federal Reserve system. The deflation program, we are mostly agreed, is responsible for our financial and industrial plight. He proposes now to set the criminals free with their illgotten gains. The sensible thing, it seems to me, would be to adopt an inflation program, that would make dollars worth what they were when debts were incurred on depreciated currency values.

To illustrate: I know a man who bought farm land at inflated values with 35c dollars. He incurred an obligation in addition to his payment of \$20,000. This obligation carried an interest rate of 8%. Depreciation wiped out the value of his first payment. His earnings will not pay his interest on his indebtedness. In fact it will require careful management to pay current expenses.

I have no doubt that he is an example of thousands of farmers throughout the land. Should those individuals and corporations who have been profited by the double and treble buying power of their dollars enjoy immunity and "freeze out" these farmers, who are the bone and sinew of all our industry, and make them lose the accumulations of a lifetime of toil and deprivation? It is true, as charged by the governor of one Federal Reserve bank, that farmers, some of them, enjoyed high living during "the spree," but I don't see why that should be charged against them as it is the only one they have ever had; more especially since that holiday of feeling rich afforded the rest of the world their opportunity for a big time.

If the Reserve banks cannot bring about a stable inflation that will last long enough to pay off our public debt incurred on 35c dollars, along with our private obligations incurred on the same inflated value or deflated dollar, then there is another remedy that will "raise the dead."

It may not meet with Mr. Walker's approval of an "honest dollar," but it will make a "fair game" for everybody that is playing.

Municipal and county bonds are considered one of the best forms of investment. They are absolutely safe because they are a first mortgage on security of ten to twenty times the value of the loan. They are profitable because they pay a good rate on investment that is nontaxable. They are worth more than gold because the owners of gold, or its equivalent, exchange gold for them. If they bore no interest they would be none the less safe.

Our Federal Government, being a creation of all the citizens, nominally conducts its affairs in the interest of all the people, without relation to locality, class or occupation, so any measure that would take off burden and add to usefulness should be adopted to this end, provided it is safe.

Gold is considered a safe basis for a currency issue. Most of us will take gold notes in preference to gold itself. I have just mentioned the bonds for which gold is eagerly exchanged. If they are safe enough to exchange gold for why are they not safe enough as a basis for currency? Mr. Walker might possibly offer the objection that it would not be created by honest toil. That objection is not valid because it is not true. Thirty years ago the taxable values in my own county

were \$750,000. Now they are \$70,000,000, and the resources of the county are not half developed. Is it reasonable to think that with our growing population and rapid development the values will be less in a hundred years from now or in forty years? I know of no county of which such is true.

If our Government is eager to benefit all the people, why not issue a currency based on such bond issues as I have mentioned as collateral? Why would it not be honest currency and why would it not be safe currency?

These bonds should bear no interest and run for a term of twenty to forty years. The currency issued on these bonds should be loaned by a county bank located in the county that issued the bonds on which this currency is based, at not exceeding 3%, allowing  $\frac{1}{2}$  of 1% for operating expenses, when would be more than paid with the business outside of this. The  $2\frac{1}{2}\%$  would retire the currency in forty years and every man living on the earth would be richer and happier.

The investments that are now made in these bonds would go into other industries that are producing commodities of value, and in expanding our foreign trade, and for the development of the undeveloped resources in the sleeping continents.

A representative from the credit department of a jobber of general merchandise which bases its credits on personal integrity told me they rarely lost as much as  $\frac{1}{4}$  of 1% on their accounts. Vendors lien or farm land notes will get money when there is any to lend. Mercantile loans, on retail establishments, I believe, are not considered very desirable. If merchandise credits on not over 60 day terms of payment lose only  $\frac{1}{4}$  of 1% forty year farm loans ought to net a loss of zero. Loan this money to farmers to pay the obligations assumed in the days of inflation and to buy homes. Texas has made many a man rich by loaning him a home forty years at 3%. That is the way it disposes of its public lands.

Nothing could be fairer than this, because the currency would be used for the upbuilding of the very resources that created it.

I do not believe that municipal bonds should be considered as a basis for such a currency issue, especially of the larger municipalities, because the inducement to own country homes would be so great as to attract people away from the great centers toward the smaller towns and to the country. No one who has had a taste of real life would consent to be imprisoned in a city, with all its nerve-racking noise and bustle.

Of all my associates of about my age in the city twenty years ago I was the most frail. I have done more work since than any two of them, and without exception they are gray as rats and I have not one gray hair.

The bond issue should not be in excess of one-fourth of the county's taxable valuation, less the amount of its present bonded indebtedness. That would make security doubly secure.

If my views are wrong I would be glad to have them corrected and if they are right I would be glad to defend them.

I would be glad to discuss this at some length if Mr. Walker would be willing to discuss it.

Plans are being prepared by Birch D. Easterwood, Waco, Tex., for educational buildings at Baylor University, Waco, to cost upwards of \$250,000.



# THE IRON AND STEEL SITUATION

## Continued Improvement at Pittsburgh.

Pittsburgh, March 18—[Special.]—The steel mills have no uneasiness as to coal conditions after April 1, when it is expected there will be a general suspension of operations at the bituminous mines. Estimates of stocks in the hands of consumers vary somewhat, the minimum being that there are stocks averaging four to six week's consumption, the highest being that of the Pittsburgh district coal producers, that the stocks are equal to from 60 to 90 days of consumption. Whatever the stocks are, the mills seem to be satisfied. It is not necessary for all mills to have a stock to cover their entire consumption, as shipments from the non-union fields, including Connellsville, are counted upon. Most of the coal mines owned by steel mills are nonunion, there being some important exceptions. The Lackawanna Steel Company, has bought 15,000 tons a month of Connellsville coke beginning April 1, to help it out, while the Jones & Laughlin Steel Company, Pittsburgh, is inquiring for coal.

The coal market itself has given circumstantial evidence in the past week or ten days that consumers have been forehanded in stocking, as the market has turned decidedly soft and some grades of coal are lower in price. Connellsville coke reflects the softness in coal to a limited extent, being decidedly easier though it is hardly quotable at lower prices than one week or two weeks ago, the spot market standing at \$3.25 to \$3.50 for furnace and \$4.25 to \$4.75 for foundry.

Steel ingot production has now run for three or four weeks at a fairly steady rate, about 29,000,000 tons a year. This is just a trifle under the average rate in 1912 and 1913, the two best tonnage years before the war, and the slight difference is all accounted for by the lighter exports at this time.

While the total of steel production for domestic use is approximately the same as in 1912 and 1913, the distribution by products is quite different. Production of sheets and tin plate is much heavier, and production of standard steel pipe and wire nails is probably heavier also. Rail production is lighter, but is at a rate fully sufficient to take care of current replacement needs of the railroads, the decrease in rail production from the rate in 1912-3 being due to their being no laying of new track this year and very little export business. Plate production is less than in the best years before the war and makes a still poorer comparison with capacity as none of the plate mills built to take care of the heavy demand when the world's merchant marine was being restored have been dismantled.

On the whole, steel prices may be said to show a slight firming up tendency, but there are some cross currents. Bars, shapes and plates, which were by far the lowest priced steel products compared with cost of production, have shown a distinct stiffening tendency, amounting substantially to an advance, as concessions below a 1.40c basis have not been heard of in the past week, when two or three weeks ago there were sales at \$1 to \$2 a ton or more under this level. The objective of mills is 1.50c and predictions are made that this price can easily be established if the mills accumulate a little more backlog business. One large independent, as reported last week, recently accumulated enough business to warrant its advancing firmly to this basis.

Nails are a shade easier, in that some large distributors are getting a concession from the regular \$2.40 price. Sheets continue very firm as they have been for more than three months, and tin plates are doing very well in both price and tonnage. Concessions from regular prices on pipe are reported somewhat less extensive than a fortnight ago.

Basic pig iron is up 25 cents, being established for the third time in the past nine months at \$18, valley. Sales of 600 tons and 1000 tons have been made at the \$18 price. Foundry iron is steadier, all recent sales having been at the full \$19 price. Bessemer in small lots is \$19.50. Prices

given are f.o.b. valley furnaces, with \$1.96 freight to Pittsburgh.

Two or three dealers have been bidding \$16 for heavy melting steel scrap, although the last sales to mills were at \$15.50. Most dealers having short contracts at this price are limiting their bids to from \$15 to \$15.25, and do not think the time is ripe for an advance above \$15.50, which is the limit of mill bids at present.

## Brighter Outlook At Birmingham.

Birmingham, Ala., March 20 — [Special.] — Additional strength is noted in the Southern pig iron market for the week. Sales made, though mainly in small lots, make a large aggregate. Quotations are firmer and there is need for greater production. Steel making, too, is increasing and this is bringing about necessity for a greater basic iron output. The Woodward Iron Co., has its three blast furnaces at Woodward in operation, the third one just getting back into activity after having having fires banked for several weeks. This company has been selling its product right along. The Tennessee Coal, Iron & Railroad Company blew in one of the Ensley furnaces and the Alice furnace, in Birmingham proper, this month and is now giving consideration to one of the Bessemer furnaces, this furnace to be put on ferro-manganese a little later on. The Sloss-Sheffield has but one furnace in operation, the Sheffield furnace, iron from there being shipped by water on the Tennessee river at Metropolis, Ill., from which place it is distributed by rail into the St. Louis and Chicago territories at a very low transportation cost. The Republic, Alabama, Central Coal, Gulf States Steel, Shelby, (charcoal) and Rock Run interests, (charcoal) each have a blast furnace in operation, while the Tennessee Company has six iron-makers in operation and the Woodward Iron Company three.

Pig iron from the Birmingham district is being shipped steadily to all sections of the country while the home melt is rapidly picking up. Quotations show a little more firmness, sales having been made at \$15.50 and in some few instances at \$16 per ton.

The operations of the Tennessee Coal, Iron & Railroad Co. (United States Steel Corp.) in the Birmingham district are now on a larger percentage of capacities than for many months. Demand for various steel shapes is steadily improving and there is a healthy shipment of all products, no little export business still being reported. The American Steel & Wire Co., (Corporation) and the Gulf States Steel Co., are receiving orders for steel wire and wire products. Bright future prospects warrant increased production.

There has been no reduction in the coke production though more coke is being manufactured than is needed, surplus stock of coke with the Sloss-Sheffield Steel & Iron Co., their North Birmingham by-product coke oven plant furnishing gas to the city of Birmingham, showing a very large tonnage. Foundry coke prices are still based on a \$5 per ton base.

Some improvement is noted in scrap iron and steel, furnace interests are buying small quantities and foundries are negotiating for a little stock.

### FIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$15.00 to \$15.50; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$15.50 to \$16.00; iron of 2.75 to 3.25 per cent silicon, \$16.00 to \$16.50; iron of 3.25 to 3.75 per cent silicon, \$16.50 to \$17.00; iron of 3.75 to 4.25 per cent silicon, \$17.00 to \$18.00; charcoal iron, f. o. b. furnaces, \$30.00 to \$32.00.

### OLD MATERIAL.

Old steel axles	.....	\$14.00 to \$16.00
Old iron axles	.....	15.00 to 16.00
Old steel rails	.....	11.50 to 12.00
Heavy melting steel	.....	11.00 to 11.50
No. 1 R. R. wrought	.....	11.00 to 12.00
No. 1 cast	.....	14.00 to 15.00
Stove plate	.....	13.00 to 13.50
Old car wheels	.....	13.50 to 14.00
Old tramcar wheels	.....	12.00 to 12.50
Machine shop turnings	.....	3.50 to 5.00
Cast iron borings	.....	3.50 to 5.00
Cast iron borings, (chem.)	.....	13.40

# RAILROADS

## \$2,000,000 Railroad Construction Program.

Contracts for construction of double track and revision of grades which will cost about \$2,000,000 this year have been awarded by the St. Louis-San Francisco Railway according to announcement at St. Louis by President J. M. Kurn.

The work to be done immediately includes construction of second track from Windsor Springs to Valley Park, Mo., 5 miles, which will cost about \$750,000, also second track construction from Paola to Spring Hill, Kans., 13 miles, to cost about \$745,000 and new double track from Swedeberg to St. John, Mo., 3½ miles, reduction of grade at Crocker, Mo., reduction of grades and elimination of the Meramec Highlands tunnel, fill ins and cuts and reduction of grade at Garnsey, Mo. The grade reductions are expected to cost about \$575,000.

Grant, Smith & Co., of St. Paul, Minn., have been given the contracts for the work on the eastern division and they have established an office in St. Louis at 509 Merchants-Laclede Building to handle it. The double tracking in Kansas has been given to the Walsh Construction Co., of Davenport, Iowa. Active construction is to begin April 1.

When these improvements are completed, it is stated, the Frisco will be able to greatly expedite the movement of traffic between St. Louis, Kansas City and the Southwest. Eastbound trains on the improved grades will be able to carry 500 tons more freight and there will not be any more delays for trains at meeting points. There will be a complete double track from Kansas City to Paola, 43 miles and it is, moreover, the intention of the company to ultimately double track the road all the way across Missouri.

## Railroad Development Agents' Meeting.

At the third annual meeting of the Railway Development Association of the Southeast, which is a branch of the American Railway Development Association, most of the railroads of the Southeast were represented during the two days' session in Atlanta. Jesse M. Jones, general development agent of the Seaboard Air Line Railway, president of the Association, was in charge. There was a general expression of opinion marked by enthusiasm for advancing the possibilities and resources of the South and to co-ordinate work among the lines to that end. Discussing agriculture, the Association was unanimous in the opinion that cotton should not be abandoned, but that the hazard of one crop should and could be removed by practicing safe farming, that is providing for the needs of the farm, raising other crops such as sweet potatoes, hogs, dairy products and other special crops. The importance of building pastures for live stock was acknowledged by everyone. All agreed that carpet grass, declared to be equal to blue grass, should be the basis for these pastures. The question of national reclamation, as it relates to the Southeast, was emphasized and the association went on record as favoring a bill for national reclamation. Other discussions were along the lines of immigration for the South, the advantages of the South for the manufacturer, and the marketing problems of the development agents. J. F. Jackson, agricultural agent of the Central of Georgia Railway, was elected president of the Association for the ensuing year.

## \$7,000,000 Paid to Louisville & Nashville Railroad.

The United States Administration, according to an announcement at Washington, has paid the Louisville & Nashville Railroad Co. \$7,000,000, this being the final settlement for the use of the property during the period of Federal control of the railroads.

The Alabama & Vicksburg Railway Co. was paid \$275,000

## New Equipment.

Florida East Coast Railway has ordered 10 locomotives from the American Locomotive Company, seven of them being Pacific type passenger engines and three of them six-wheeled switching engines. The road is also reported in the market for 10 cabooses.

Baltimore & Ohio Railroad has ordered a gasoline propelled motor car for passenger service on the Romney branch between Green Spring and Petersburg, W. Va. The car was purchased from the Edwards Railway Motor Car Co., of Sanford, N. C.

Savannah Electric & Power Co., Savannah, Ga., has ordered 30 street cars of the Birney one-man type for delivery by early summer.

Among car inquiries recently reported are 150 ore dump cars of 70 tons capacity for the Tennessee Coal & Iron Railroad and from 2000 to 4000 all steel hopper cars of 70 tons capacity for the Norfolk & Western Railway, which is also in the market for seven dining cars.

Atlantic Coast Line Railroad has ordered 10,000 tons of steel rails and the company also contemplates buying 600 phosphate cars.

## Important Decision as to a Texas Railroad.

In a decision of the United States Supreme Court handed down last week by Associate Justice Van Deventer, it is held that the Transportation Act of 1920 did not give the Interstate Commerce Commission authority to suspend the operations of the Eastern Texas Railroad, this question being raised in the case of the State of Texas against that railroad and others. The Federal Court in Texas had held that the order of the Interstate Commerce Commission permitting the railroad to suspend operations was valid, but as the railroad was entirely within the state of Texas and was chartered by that state, not being a part of any road engaged in interstate commerce, the decision of the district court has been reversed. Justice Van Deventer said the Supreme Court would not pass upon the question whether the railroad company was entitled to abandon its line, because that question was not presented in the case.

## Oil Corporation Buys a Railroad.

Announcement is made of the purchase of the Louisiana & Northwest Railroad by C. N. Haskell, chairman of the board of the Middle States Oil Corporation. The line is 99 miles long from McNeil, Ark., to Chestnut, La., and runs via the rich oil fields of northern Louisiana around Homer and Haynesville. It connects at McNeil with the St. Louis Southwestern Railway, at Gibsland, La., with the Vicksburg, Shreveport & Pacific Railway, and at Chestnut with the Louisiana & Arkansas Railway. E. R. Bernstein, Shreveport, La., is receiver of the property and G. A. Campbell, of Homer, is general manager. The new owners, it is understood, will improve the road's facilities for the transportation of petroleum and an extension may be built to El Dorado, Ark.

Mr. Haskell, formerly Governor of Oklahoma, was several years ago active in railroad building in that state. His office as chairman of the oil corporation is at 347 Madison Ave., New York.

George K. Caldwell, chairman of the Southern Freight Rate Committee, who died at Montclair, N. J., on March 8, had been connected with the Southern Railway Company for 26 years and had risen rapidly in its service. He was Assistant Freight Traffic Manager when the Southern Freight Rate Committee was organized in March, 1920 and became its chairman, representing all of the railroads south of the Ohio and the Potomac rivers and east of the Mississippi River. Mr. Caldwell was a man of distinguished ability and was widely known. Although he had been ill for some months his death was not expected.

# GOOD ROADS AND STREETS

## \$6,000,000 Road and Bridge Program.

Greenville, S. C., March 18—[Special.]—During 1922 it is expected that upwards of 750 miles of highways and numerous bridges, involving the expenditure of approximately \$5,960,000, will be undertaken in the state. Of the total mileage 70 will be hard surfaced to cost \$2,240,000 and the remainder will be of various types, costing \$2,720,000. In addition about \$1,000,000 will be expended in bridge construction.

Since November 15 a survey of roads has been under way. The officials of the U. S. Bureau of Public Roads have found that it would take 49 bridges to carry the state system of roads over intervening rivers, and \$5,500,000 would be the cost of these structures.

During the last seven years the counties and several townships have voted bonds to the sum of \$15,237,000 for road and bridge work. During the past year the issues amounted to \$4,052,000. The total amount authorized by the Legislature to be issued or voted totals \$25,275,000, making about \$10,000,000 bonds not issued.

During 1921 a total of 492 miles of roads was constructed with funds provided by the counties and supplemented by Federal and state aid at a cost of \$2,908,000. The mileage constructed with county funds alone was 290, costing approximately \$1,510,000. The total cost of bridge work last year done under the supervision of the highway department was \$558,000, bringing the total amount expended on construction of roads and bridges to \$4,976,800.

## Interstate Highway System Outlined.

Charleston, W. Va., March 13—[Special.]—A system of primary or "interstate" highways totaling 950 miles has been designated in this state in compliance with the Federal aid act, it has been announced by William Brewster, United States Highway Engineer. This state has been allotted \$802,000 of the \$75,000,000 appropriated by Congress. On the Midland trail the bureau has approved one project in Greenbrier county amounting to \$320,000, and a project in Kanawha county amounting to \$160,000, 50 per cent of which will be provided by Federal aid and the remainder from the state bond issue.

The total mileage of roads in this state is about 32,000, according to Mr. Brewster, of which about 3500 miles have been designated as state routes.

## Extensive Tests of Road Building Materials.

Experiments to determine the required hardness of rock and gravel for use in concrete roads are being carried on by the Bureau of Public Roads at the Arlington Experimental Farms. About 60 sections of road are being constructed in which practically every variety of stone, gravel and sand will be used. These sections will be traveled over by an automatically operated machine, which has the same effect as an automobile truck. This will continue until the wearing properties of all the sections are determined. These tests will show, it is believed, that many local materials heretofore deemed unsuitable for concrete roads may be safely used, thereby saving the cost of importing stone, gravel and sand from a distance at big cost.

## Tendency to Wider Roads In Highway Building.

In 6500 miles of completed Federal-aid road for which statistics have been compiled by the Bureau of Public Roads, one-half has been constructed 16 and 18 feet wide, 25 per cent of a greater width and 25 per cent of a less width. The wider roads have been constructed in the more populous states, although wide roads are being generally used on the main highways to meet the constantly increasing traffic.

## \$1,500,000 Road and Bridge Contracts Let.

Raleigh, N. C., March 21—[Special.]—Contracts were awarded last week by the North Carolina State Highway Commission on 10 road and bridge projects involving the expenditure of upwards of \$1,500,000. A total of 130 bids were received for the work, which includes the construction of several bridges and roads of various types totaling about 70 miles.

Among the more important projects were the following:

Rockingham county—7.98 miles of hard surfaced road between Wentworth and Reldsville; low bidder Cheatwood & Driscoll of Richmond, Va., at \$235,035 (rock asphalt) and \$237,304 (re-inforced concrete).

Lincoln county—7.10 miles of hard surface road between Lincolnton and the Cabawba county line; low bidder Bolton Construction Co., of Marion, N. C. (plain concrete) \$227,113, and structures, R. M. Thurmond & Co., Lynchburg, Va., \$17,754.

Polk county—5.96 miles road between Columbus and the South Carolina line; low bidder, Dunn & Woodall, Atlanta, Ga. on penetration method, \$144,144; on hard surface road, Southern Paving Construction Co., Chattanooga, \$195,469.80; bridges, Henry Construction Co., Greenville, S. C., \$19,897.

Buncombe county—2.58 miles of hard surface road between Craggy and Leicester road, low bidder on rock asphalt type, C. W. Lacy, Wilmington, N. C., \$95,583; asphalt concrete, Asheville Paving Co., Asheville, \$97,968; structures R. C. Stevens, Asheville, \$6109.

Jackson county—11.85 miles macadam road between Dillsboro and Swain county line, low bidder R. H. Wright & Son, Asheville, \$236,430; structures, W. T. Moore Concrete Products Co., Andrews, N. C., \$3761.

Macon county—13.58 miles macadam road between Franklin and the Georgia line, low bidder O'Brien Construction Co., Balsam, N. C., \$11,135; structure, Griffith Construction Co., Atlanta, Ga.

The eighth and ninth districts get the majority of the mileage placed under contract. In the sixth district two projects were awarded.

## Four Year University Scholarship Again Offered.

For the third consecutive year a four years' university scholarship is being offered high school students to encourage them in the study of highway economics, according to the Highway and Highway Transport Education Committee of Washington. This is provided by Harvey D. Firestone, Akron, Ohio, a member of the committee for the best essay on "How Good Roads are Developing My Community." The essays are not to exceed 700 words in length and must be in the hands of high school teachers and principals not later than May 1.

The contest last year was won by Miss Garland Johnson, of Bridgeport, West Virginia high school. The scholarship is valued at not less than \$4000.

## Bids Wanted for Hard Surfacing.

Charlotte, N. C., March 18—[Special.]—The Mecklenburg Highway Commission expects to open bids on March 27 for hard surfacing the Providence road. Contemplated work involves the expenditure of approximately \$200,000. Two bridges will be constructed. The total mileage of the Providence and Derita projects is about 10, and will be the largest award yet made by the county highway commission. The improvements will consist of shaping the road, constructing necessary drainage structures, and surfacing it to a width of 18 feet with concrete or concrete base with bituminous top.

## \$1,000,000 Road Bonds Sold.

Greensboro, N. C., March 18—[Special.]—One million dollars worth of Guilford county bonds were sold this week to a syndicate headed by the Fifth-Third National Bank, of Cincinnati, Ohio, for a premium of \$18,700. The bonds will be used for building roads in the county. A similar amount will be offered for sale some time in July. Eight bids were received, and the commissioners were highly gratified at the results.

R. M. Hudson Co., Salisbury, N. C., has been awarded the contract for construction of 68,000 square yards of street paving at an approximate cost of \$160,000, at Danville, Va., according to Ralph K. Linville, city engineer.



### Report Shows 70 Tennessee Counties Have Over \$34,000,000 for Road Building.

Nashville, Tenn., March 18—[Special.]—About 70 counties of Tennessee have voted bonds for road building purposes to the extent of \$34,365,000, according to a report just compiled by the State Highway Commission. Of 25 counties that have not sold bonds for highway purposes, 13 have authorized bond issues. They are Coffee, Gibson, Macon, Haywood, Houston, McNairy, Marshall, Obion, Polk, Stewart, Van Buren, Warren and Wayne.

In numerous counties bonds have been voted in excess of the 5 per cent of the taxable valuation permitted where a majority of taxpayers so approve, and in some instances bonds have been voted to the extent of 10 per cent of the valuation. In these cases a two-thirds vote of the taxpayers is required.

Of the total voted \$27,780,500 have been issued and the par value of the bonds sold is \$27,345,000. The amount authorized but not issued totals \$6,585,000. Of the bonds issued \$4,487,000 were for Federal and state aid projects, while the counties themselves issued \$22,933,500 for the construction of local roads.

### Twenty-Five Road and Bridge Projects Under Construction in Alabama With Federal Aid.

Montgomery, Ala., March 18—[Special.]—According to figures just compiled by the State Highway Department there are under construction in this state road projects with Federal Aid having an estimated total cost of more than \$3,000,000. Two projects have recently been completed. One is an 8.66 mile stretch in Barbour county, costing \$40,000 and the other a 12.05 mile highway in Lauderdale county, costing \$170,000. Bids have been advertised for the bridge over the Cahaba river, for the highway in Morgan and Cullman counties, and plans are being prepared for many other roads. Progress is being made on the Bee Line Highway, which passes through Montgomery and Birmingham.

### Trans-Mountain Highway Making Progress.

Pickens, S. C., March 11—[Special.]—Work on the trans-mountain highway from this place to Brevard, N. C., is making steady progress. Ten miles of the 19 being built by Pickens county has been completed by convict labor, and as soon as another mile is finished contract will be awarded for the remaining eight miles. It is estimated that the cost of the road will be approximately \$175,000. It will be the nearest route into western North Carolina from Augusta, Savannah, South Georgia and Florida.

### City Awards \$200,000 Paving Contract.

High Point, N. C., March 11—[Special.]—R. G. Lassiter & Co., of Oxford, have been awarded contract by the Mayor and Board of Aldermen for paving 50,000 yards of streets at an approximate cost of \$200,000. The work will begin at once under the direction of Taplin and Perkins, city engineers.

### Highway Contract Awarded.

Memphis, Tenn., March 11—[Special.]—Bids received on the Lamar-Somerville-Linden highway were \$35,000 under the engineer's estimates. Contract was awarded the Bryant Paving Co., of Waterloo, Ia., at \$149,023. Six bids were received for the project.

### \$250,000 Street Paving Contract.

Bluefield, W. Va., March 11—[Special.]—The Federal Asphalt Paving Co., of Hamilton, O., has been awarded the contract for 55,000 square yards of paving here estimated to cost \$250,000, according to Clarence E. Ridley, city manager. Elmer C. Barton, Bluefield, is the engineer in charge.

### Notes on Good Roads Construction.

Street improvement bonds sold recently by the city of Nashville, Tenn., and aggregating \$478,000 brought a premium of \$22,683, the successful bidder being the Harris Trust Co., of Chicago. In all fourteen bids were received.

San Angelo, Tex., recently sold \$150,000 paving bonds at par and accrued interest together with a premium of \$5766 to Bosworth, Chanute & Co., of Denver, Col. Ten bids were submitted for the bonds. Bids will be received this week for construction of about six miles of paving with the proceeds from the bonds sale.

Jackson County, Miss., has sold \$387,000 bonds to the Bank of Commerce and Trust Co., of Memphis, Tenn., for par, accrued interest and a small premium. The bonds are to be divided as follows: District 2, \$95,000; District 3, \$112,000; and District 4, \$180,000. The money will be used to build a permanent highway across the southern portion of the county in a route to be selected after a conference with engineers of the State Highway Department. Federal aid has been promised to an amount equal the bond issue.

## TEXTILE

### \$180,000 Gingham Mill to be Erected.

Reports from Asheville, N. C., state that the establishment of a gingham mill at Old Fort, N. C., is practically assured. The plant is to be equipped with 8000 spindles and looms, the cost to be approximately \$180,000. It is understood that a site has been purchased and that electric power is available at a nominal rate. The committee on temporary organization and the purchase of machinery includes D. W. Adams, chairman; P. H. Mashburn, J. S. Bradley, G. W. Sandlin, all of Old Fort, and others.

### \$400,000 Cotton Mill Company Organized.

The cotton mill property of the Fidelity Manufacturing Co., at Charlotte, N. C., has been purchased by the Holly Manufacturing Co., a new company organized with \$400,000 capital by W. R. Robertson, Frank D. Alexander, W. H. Belk and A. P. Rhyne. Operations will be resumed. The plant is equipped for the manufacture of damasks and cotton yarns.

### Textile Mill Notes.

An increase of capital from \$25,000 to \$45,000 has been announced for the Weiss Hosiery Mill of Cleveland, Tenn.

C. L. Ford of Memphis, Tenn., is promoting organization of company to build a mill for manufacturing mercerized and silk hosiery.

One hundred Draper looms have been ordered for installation in the Baldwin Cotton Mills of Chester, S. C.

The Bedford Woolen Co., has acquired the woolen mills of the Kent Manufacturing Co., at Bedford, Va., and contemplates improvements. Practically the same line of goods will be manufactured as heretofore. M. P. Hunter of Norristown, Pa., is president and secretary-treasurer of the Bedford Woolen Co., and will be in general charge of the mills.

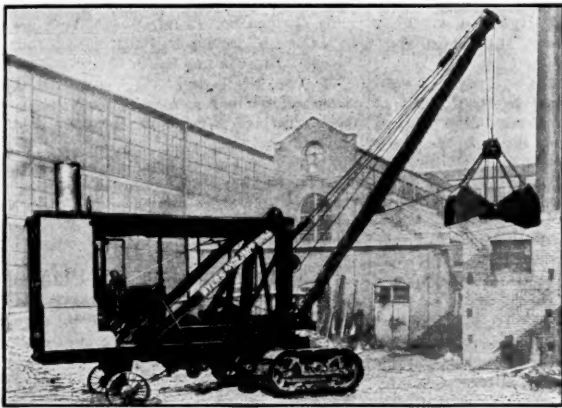
George H. Brockenbrough, Sr., George H. Brockenbrough, Jr., and G. L. Brockenbrough have incorporated the Charlotte Dye Works of Charlotte, N. C., with an authorized capital of \$125,000. The plant will be maintained and operated in connection with the Belbro Mills, owned by the incorporators of the new organization.

## MECHANICAL

### A New Improved Auto-Crane.

A number of important improvements and refinements have recently been made by the Byers Machine Company, Ravenna, O., to their standard auto-crane and they have designated the new machine as Auto-Crane, Model 4. This crane was on exhibition at the Chicago Road Show where it attracted an unusual amount of attention and interested comment. The accompanying illustration shows the machine just as it appears ready for work.

This crane is admirably adapted to any service in general contracting or industrial activities, in fact anywhere that a machine of its capacity can be operated to advantage. The car body is 17 feet 2 inches long and 6 feet 6 inches wide; the width outside of wheels is 9 feet 7 inches or 10 feet 7 inches outside of the caterpillar treads. Height from the ground to the top of the A-frame sheave is 13 feet 5 inches, but the boom and the stack are easily removable in the case of close clearances. The width outside of outriggers is 19 feet.



THE NEW AUTO CRANE READY FOR A JOB.

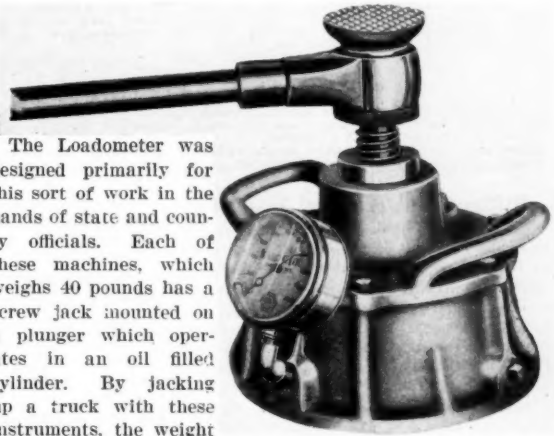
Any one yard clam shell bucket of weight less than 2700 pounds may be used for car unloading or a three quarter yard bucket for excavating. The maximum operating radius is 20 feet. Additional height may be obtained by using a longer boom, when used as derrick for lighter loads, but the 20 feet radius is the maximum. Capacity is 10,000 pounds at 10 feet on double line, 8000 pounds at 15 feet, 6500 pounds at 20 feet, and 5500 pound bucket and load at 20 feet on single line. For satisfactory operation on bucket work, it is stated, the combined weight of bucket and load must not exceed 90 per cent of the dead load capacity. For bucket work the boom is 30 feet long; for derrick work,—special cases,—up to 40 feet. The weight complete without bucket is 14 tons.

The general construction of this new auto crane is thoroughly strong and efficient. The power plant may be either steam, gasoline or electric as purchasers desire. The propelling speed forward or reverse is 100 feet per minute on hard level surfaces. An all steel cab protects the operator and the machinery from the weather.

### Instrument to Weigh Loaded Trucks.

The two accompanying pictures show the "Loadometer," a portable weighing scale, and its application to a motor truck suspected of being overloaded. This new device, which is manufactured by the Black & Decker Mfg. Company, Towson Heights, Baltimore, Md., has been used successfully

by the Maryland authorities in their enforcement of the state law against overloaded trucks on the highways. The result of this campaign with the use of Loadometers has been the practical disappearance of overloaded trucks from the state roads with consequent stoppage of damage to the road surfaces by excessively heavy burdens passing over them.



The Loadometer was designed primarily for this sort of work in the hands of state and county officials. Each of these machines, which weighs 40 pounds has a screw jack mounted on a plunger which operates in an oil filled cylinder. By jacking up a truck with these instruments, the weight is transferred to them and in the case of each the plunger indicates the number of pounds weight upon a high pressure gauge connected to the oil chamber. The bodies of these instruments are of special aluminum alloy. In some states and counties they are used in pairs; in other places to save time, four form a set.

These instruments are so handy that they can be carried about either in a small automobile or in a motorcycle sidecar, so that officers can use them for protecting roads over a



TWO LOADOMETERS WEIGHING A LOAD.

considerable amount of territory. In the picture showing two of the instruments in use the rear wheels are jacked up clear of the ground and the weight recorded show the load on the rear axle. Then they are transferred to the front axle and readings taken there. It is noted that Loadometers are now being used in most of the states, saving thousands of dollars in road repairs.

Shenck and Williams, architects of Dayton, O., have plans under way for an 11-story office and bank building, 100 by 100 feet, for the Ashland National Bank, Ashland, Ky.

# Construction Department

## EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

## DAILY BULLETIN.

The Daily Bulletin of the MANUFACTURERS RECORD is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

### Bridges, Culverts and Viaducts.

Fla., Jacksonville—City Comsn. plans constructing concrete bridge over Hogans Creek at East Bay St.; \$10,000 available.

Ga., Cedartown—State Highway Dept. of Georgia, First Road Div., Rome, Ga. will build bridge over Euharlee Creek; construct road; bids until April 1; A. A. Simonton, Div. Engr., Rome, Ga. (See Mch. Wanted—Bridge Construction.)

Ga., Doolin—Laurens County Comms. Road and Revenues will construct reinforced concrete bridge over Rocky Creek; Federal Aid Project 240, State Aid Project S-12-20; bids until April 4; E. N. Parker, Div. Engr. (See Mch. Wanted—Bridge Construction.)

Ga., Savannah—Chatham County Comms. plans voting on bonds to build concrete and steel bridge over Savannah river connecting Georgia with South Carolina; cost \$700,000. (Previously noted.)

Ga., Tifton—Tift County plans building concrete bridge to span Little river; total length 500-ft.; cost \$40,000. Address County Comms.

La., Lake Charles—Calcasieu Parish Police Jury, W. J. Prater, Prest. will build approaches to Moss Bluff highway bridge across Calcasieu river; crescent timber approach trestle at each end of main bridge; total length 900-ft.; bids until April 11. (See Mch. Wanted—Bridge Construction.)

La., Lake Charles—Calcasieu Parish Police Jury let bridge contract as follows: Foundation Co., New York, and New Orleans, La., at \$68,700 for foundation for main bridge and four river piers; Pensacola Shipbuilding Co., Pensacola, Fla., at \$83,900 for steel trestles, concrete floors, counter weights and towers; no contract was let for approach trestle. (Lately noted inviting bids.)

Md., Baltimore—Board of Awards will complete Biddle St. bridge over Pennsylvania railroad tracks; three spans topped by ornamental light; 148-ft. long and 66-ft. wide; cost \$40,000; bids until Mch. 29. Previously noted. (See Mch. Wanted—Bridge Construction.)

Miss., Anguilla—Sharkey County Suprs. let contract to Nashville Bridge Co., Nashville, Tenn., at \$91,700 for building steel highway bridge over Sunflower river; 139-ft. vertical lift span and two 226-ft. flanking spans; etc.; Southern Engineering Co., Engr. (Lately noted inviting bids.)

Mo., Bethany—State Highway Dept., Jefferson City, Mo., will build bridge on State road from New Hampton eastward and westward; 50 and 55-ft. pony truss spans; concrete floor; two 20-ft. reinforced concrete slab spans; etc.; cost \$26,430.35; Harrison County, Federal Aid Project No. 50.

Mo., Gainesville—State Highway Dept., Jefferson City, Mo. will build reinforced concrete low water bridge on State road from

Gainesville eastward; Ozark County, Federal Aid Project No. 111, Section B; cost \$7053.80; bids until Mch. 28; H. P. Moberly, Div. Engr., Woodruff Bldg., Springfield, Mo. (See Mch. Wanted—Bridge Construction.)

Mo., Hermitage—State Highway Dept., Jefferson City, Mo. will build four 20-ft. reinforced concrete slab spans, 30-ft. reinforced concrete through girder span, skewed and two 16-ft. reinforced concrete slab span bridges in Hickory County; Federal Aid Project 69; cost \$10,837.10; S. M. Rudder, Div. Engr., Sedalia, Mo.

Mo., Houston—State Highway Dept., Jefferson City, Mo., let contract to M. E. Gillioz, Monet, Mo., at \$21,294.15, for building bridges including six 20-ft. and three 24-ft. reinforced concrete slab spans; 16-ft. reinforced concrete slab span skewed; four 36-ft. reinforced concrete through girder spans; etc.; Texas County, Federal Aid Project 90, Section B. (Lately noted inviting bids.)

Mo., Mexico—Audrain County Court let contract to Pan-American Bridge Co., Moberly, Mo., for building 14 bridges.

Mo., Van Buren—State Highway Dept., Jefferson City, Mo., let contract to Davis Construction Co., to build 20-ft. reinforced concrete slab spans; 2 reinforced concrete abutments; reinforced concrete low water bridge; Carter County, State Aid Project 20-122; M. S. Murray, Div. Engr., Sikeston, Mo.

N. C., Columbus—North Carolina State Highway Comsn., Raleigh, N. C. will construct bridges in Polk County; Project S66; low bidder Henry Construction Co., Greenville, S. C., at \$19,897.60.

Okla., Oklahoma—Oklahoma County will invite new bids on bridge construction; Ed. S. Butterfield, Chrmn. Comsn. (Previously noted.)

Okla., Vinita—Craig County, Ralph Gentry Clk. let contract to Telnor and Armstrong, at \$19,908.31 for building 7 bridges. (Lately noted inviting bids.)

S. C., Abbeville—State Highway Dept., Columbia, S. C., will build 6 concrete bridges in Abbeville County; 132-ft. and 100-ft. steel span; 109-ft. concrete; etc.; cost \$40,000. (Lately noted.)

S. C., St. George—State Highway Dept., Columbia, S. C., will build 600-ft. concrete bridge; cost \$42,000.

S. C., Yemassee—State Highway Dept., Columbia, S. C., will build 4 bridges over Coosa-whatchie and Tullifanny river; concrete piles with beams and girder super-structures; cost \$40,000.

Tex., Belton—Bell County will build reinforced concrete bridges on State Highway No. 2; bids about Apr.; J. W. Sutton, County Judge; S. J. Treadway, County Engr. (See Mch. Wanted—Bridge Construction.)

Tex., Cameron—Milam County plans constructing 415-ft. steel cantilever span and concrete bridge over Brazos river; cost \$120,000; W. C. Gillis, County Judge; A. F. Mitchell, County Engr.

Tex., Houston—City will build reinforced concrete bridge on Heights boulevard; cost \$60,010; J. C. McVea, City Engr.

Tex., Livingston—Polk County plans building 260-ft. steel span and concrete trestle bridge over Neches river between Polk and Angelina county lines on State Highway No. 35; cost \$43,000; E. T. Murphy, County Judge; W. C. Youngs, County Engr.

Tex., Taylor—State Highway Dept., Austin, Tex., approved plans for construction of 500-ft. concrete bridge over Bull Branch on Highway No. 2; cost \$17,350; bids in near future; D. F. Love, County Judge; R. A. Nichols, County Engr.; both Georgetown, Tex.

W. Va., Benwood—Bellaire & West Virginia Bridge Co., capital \$150,000 inceptd. by James H. Robinson, Bellaire, O.; John C. Nichols, St. Clairsville, O.

W. Va., Bridgeport—City will vote April 25 on referendum vote on \$30,000 bonds for reconstructing West End bridge. Address The Mayor.

W. Va., Wayne—Wayne County Court let contract to McClintock-Marshall Co., Pittsburgh, Pa., at \$8360 for building 170-ft. span bridge over Twelve Pole Creek; steel superstructure with wood block floor.

### Canning and Packing Plants.

Fla., Eau Gallie—Walter Hawkins, 224 W. Bay St.; rebuild fruit packing plant recently burned.

N. C., Aberdeen—Sandhills Packing Co., capital \$300,000, inceptd. by Thomas A. Kelley, Ernest M. Foote and E. Lewis Prizer.

N. C., Elkin—Elkin Canning Co. let contract to erect cannery.

N. C., Washington—City contemplates establishing packing plant; address C. M. Brown, Box 166. (See Mch. Wanted—Packing Plant Equipment.)

Tenn., Rogersville—Klitzmiller-Kenner Co., H. I. Regar, plans erecting \$40,000 cannery.

### Clayworking Plants.

N. C., Lilesville—Bricks and Tiles—Anson Brick & Tile Co., capital \$30,000, inceptd. by S. H. Clark and B. R. Wall, both Lilesville; C. P. Stewart, Pee Dee, N. C.

W. Va., Martinsburg—Shale Bricks—American Shale Brick Co., capital \$100,000, inceptd. by F. Vernon Aler, Martinsburg; Chas. L. Magee, Washington, D. C.; Jas. N. Dyson, Philadelphia, Pa.

Tex., Houston—Bricks—Model Brick Co., capital \$10,000, inceptd. by Ritz Aebi, W. J. Carter and J. F. Meyer.

### Coal Mines and Coke Ovens.

Ala., Blocton—Braehed Coal Mining Co., C. C. Huckabee, Prest.-Mgr. (lately noted to develop new mine) has 640 acres coal land, daily output 400 tons; install mch. (See Mch. Wanted—Mining Mch.)

Ky., Cary—Castro Mining Co., capital \$15,000, inceptd. by J. Y. Page, C. L. Gooch and Frank C. Martin.

Ky., Harlan—Harlan Kelloka Coal Co., increased capital from \$120,000 to \$250,000.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Ky., Letcher County—Virginia Coal & Coke Co., Roanoke, Va., capital \$10,000,000; acquired holdings in Letcher, Harlan, Perry and Pike Counties.

Ky., Louisville—Chappell-Shrader Coal Co., capital \$10,000, inceptd. by C. B. Chappell, J. D. Allen and A. N. Shrader.

Ky., Williamsburg—Kivott Jellico Coal Co., capital \$10,000, inceptd. by T. A. Coley, Williamsburg; H. C. Kivott and A. H. Davis, both Jellico.

W. Va., Morgantown—Lockview Coal Co., capital \$350,000, inceptd. by F. M. Lucas and J. R. Moreland, Morgantown; E. C. Stenz, Cheat Haven, Pa.

W. Virginia—Consolidation Coal Co., W. L. Andrews, V.-P., Continental Bldg., Baltimore, Md., plans enlarging Coalwood plant, carload of equipment purchased. (Lately noted acquiring coal lands of Carter Coal Co., in Virginia and W. Virginia.)

### Concrete and Cement Plants.

Ala., Montgomery—Concrete Products—Chamber of Commerce, interested in establishment of plant for mfr. of concrete piling, pipping, culverts, etc.

N. C., Lilesville—Concrete Products—Intergate Concrete Co., Charlotte, N. C. (lately noted inceptd., capital \$25,000) organized with A. R. Long, Pres.-Mgr.; W. H. Long, Secy.; L. A. Brown, Treas.; has 36x100-ft. plant under construction; mchy. all purchased; mfr. concrete products.

Tenn., Knoxville—Concrete Products—Knoxville Roof, Tile & Concrete Co., capital \$10,000, inceptd. by J. J. Bayless, C. O. Gentry and C. M. Miller.

### Cotton Compresses and Gins.

Ark., Jonier—Driver Gin Co., capital \$50,000, inceptd. with E. E. Driver, Pres.; C. H. McGarrity, V.-P.; J. T. McGarrity, Secy., Treas.-Mgr.; all Osceola, Ark.; will expend about \$25,000 to erect various sizes mill construction buildings; frame and com. roof; construction by owners; purchased machinery; install to gin cotton. (Lately noted.)

Ark., Russellville—Russellville Cotton Compress Co., T. A. Mathews, Mgr. will erect cotton compress.

Tex., Lorena—S. C. Williams plans rebuilding ginnery, burned at \$35,000 loss.

### Drainage Systems.

Mo., Caruthersville—Elk Chute Drainage Dist. Commrs. plan constructing outlets for several drainage dists.; W. E. Callahan Construction Co., Dallas, Tex.

Mo., Macon—Chariton Dist. No. 2 of Macon County plan constructing drainage system; reclaiming about 12,000 acres land; sold \$140,000 bonds.

Mo., Marshall—Salt Fork Drainage Dist. let contract to Dees Brothers, Oblong, Ill., at \$132,000, for shortening 32-mi. course of canal to 18 mi.

Mo., Otterville—John H. Nolen, Jefferson City, Mo., interested in construction of 2 short canals to eliminate 10 mi. of crooked Lamine river; reclaiming many acres land.

Mo., Troy—Culvre River Drainage Dist. Commrs. let contract to McWilliams Dredging Co., 232 S. Michigan Ave., Chicago, Ill. to construct 1½ mi. canal; reclaiming 5500 acres; B. F. Smiley, Engr., Old Monroe, Mo. (Lately noted sell \$50,000 bonds.)

Mo., Winfield—Winfield Levee and Drainage Dist., W. H. Jackson, Sr., Secy., expend \$100,000 on levee construction, etc., work includes installing pumping station; project will reclaim about 3000 acres land; lowest bidder, Yale & Reagan, 111 W. Washington St., Chicago, Ill. (Bids lately noted.)

Okla., Tulsa—Parkview Drainage Dist. Tulsa County Commrs. plans building 60-ft. canal from near water works to west line of Parkview district; reclaiming about 900 acres land; estimated cost \$75,000; J. W. Shell, Pres., Parkview Improvement Association interested.

### Electric Plants.

Ala., Thorsby—Town granted franchise to P. G. Ault, Birmingham, Ala. to install and maintain electric light and power for town.

Fla., Lake City—City let contract to Skinner Engine Co., Erie, Pa., at \$17,268 for 300-H.P. engine, 240 K.V.A. electric generator, switchboard, transformer, etc.; double plant capacity.

Fla., Palatka—City, Chas. Burt, Clk. City Council, contemplates constructing municipal electric and gas plant.

Fla., Passagrille—City will reconstruct electric lines; repair water mains; voted \$10,000. Address The Mayor.

Fla., Safety Harbor—City, A. E. Shower, Clk.; erect electric lighting plant addition; plans voting on \$10,000 bonds.

La., Hammond—City plans expending \$20,000 to install lighting system. Address The Mayor.

La., New Orleans—New Orleans Railway & Light Co., A. L. Kempster, Gen. Mgr., let contract to Dwight P. Robinson & Co., Engr., Market & S. Peters St., to install 20,000 K.W. turbine with all auxiliaries, in present building; develop 27,000-H.P.; all machinery purchased. (Lately noted.)

Mo., Marshall—City, Board of Public Works plans expending about \$30,000 to purchase additional electric light plant unit.

N. C., Ashboro—City will install generator in light and water plant. Address The Mayor.

N. C., Elk Mountain, P. O. Asheville—North Carolina Electrical Power Co., Asheville, plans expending about \$300,000 to install steam plant addition; purchased turbine, condenser, stokers, boilers, etc.; will install; develop 6250 additional H.P.; Chas. E. Waddell, Const. Engr., Asheville. (Lately noted.)

N. C., Wendell—North State Power Co., L. J. Couch, V.-P. and Gen. Mgr., 118 W. Martin St., Raleigh, N. C., plans expending about \$35,000 to erect power plant, containing semi-diesel fuel oil engines; develop 100 H.P. Lately noted burned at \$20,000 loss. (See Machinery Wanted—Power House.)

Okla., Altus—City let contract to install additional equipment in light plant. Address The Mayor.

Okla., Muskogee—City, Geo. H. Walker, Mayor, plans installing electric light and power plant.

S. C., Duncan—City, E. A. Tessier, Mayor, let contract to Green River Power Co., to install lighting system.

Tenn., Germantown—City, J. M. Thompson, Clk., will expend about \$15,000 to construct light and water plant; install generator; oil engine; pump; switchboard. Lately noted to issue bonds. (See Mchy. Wanted—Engine; Generator.)

Va., South Hill—Town, N. G. Smith, Clk., will issue \$100,000 to \$125,000 light, power, water and sewerage bonds.

W. Va., Chesapeake—Town granted franchise to A. C. Singer to furnish light and power to town; erect plant. Address The Mayor.

W. Va., Madison—Kentucky & West Virginia Power Co., Logan, W. Va., applied for franchise to distribute electric power to town.

### Fertilizer Factories.

Fla., Miami—American Supply Co., capital \$20,000, inceptd. with Fred. G. Gomer, Prest.-Treas., Miami; Chas. R. Graham, V.-P., Goulds, Fla.; W. K. Walton, Secy., Homestead, Fla.

Fla., Tampa—Pineapple Products Co., Wm. B. Hill, Gen. Mgr., Curry Bldg., will erect factory building; install machinery to mfr. fertilizer. (See Miscellaneous Factories.)

### Flour, Feed and Meal Mills.

Ga., Augusta—W. W. Morton, J. C. Broome, George Turner and others, interested in incorporating \$150,000 company to establish co-operative grain elevator.

Ky., Paducah—Paducah Milling Co., C. C. Davis, owner, will erect 90x57-ft. brick construction building. (Lately noted plans rebuilding plant recently burned.)

La., Baton Rouge—Capital Feed Mfg. Co., 1454 Florida Ave., capital \$10,000, inceptd. with A. M. Perkins, Pres.; L. S. Doherty, V.-P., Treas. and Mgr.; S. B. Walsh, Secy.; will expend about \$10,000 to erect 2-story and tower 180x60 ft. mill construction building; construction by owners; install machinery; daily output 40 tons stock, poultry feed and kindred products. (See Mchy. Wanted—Feed Mixing Mchy.; Hay Cutters; Coolers, etc.)

N. C., Pinetops—Pinetops Milling Co., Box 65, capital \$25,000, inceptd. by Frank H. and J. H. Saunders, Jr.; plans expending about \$4000 to erect 2½-story 50x30 ft. ordinary construction building with Ell and lean to for engine room; install about \$11,000 roller mill and meal mill machinery and crude oil engine; daily output 50 bbls. flour and 150 bu. meal. Lately noted J. H. and Frank Saunders interested in establishing flour and grist mill. (See Machinery Wanted—Roller Mill Machinery; Meal Mill Machinery; Engine.)

Tex., Mineola—Rains County Mill & Elevator Co., capital \$40,000, inceptd. by D. N. Steed, H. O. Rogers and Albert Maberry.

### Foundry and Machine Plants.

Ala., Birmingham—Soll Pipe—Rudisill Soll Pipe Co., organized with H. B. Rudisill, Pres.; W. C. Wilson, Secy.-Treas.; acquired established plant, mfr. soll pipe.

Ga., Atlanta—Furnaces—Monerief Furnace Co., S. P. Monerief, Pres. plans erecting 1 story plant with 15,000 ft. floor space, metal and stucco construction; install equipment for mfr. of furnaces.

Ga., East Rome—Stoves—Bowie Stove Co., A. F. Selman, will rebuild burned plant, 100x400-ft. concrete and steel structure; install equipment to mfr. every kind of cooking or heating stove.

Okla., Okmulgee—Boilers, etc.—Okmulgee Boiler & Welding Works, capital \$25,000, inceptd. by J. H. McCready, E. E. Cornwell and Joseph I. Pitchford.

Okla., Tulsa—Oil Field Supplies—B. V. Emery & Co., capital \$12,000, inceptd. with B. B. Emery, Pres.; P. M. Castenien, V.-P.

Tenn., Knoxville—Machinery—Iddins Machinery Co., capital \$10,000, inceptd. by J. S. Sample, D. C. Holmes and K. E. Steinmetz.

Va., Bristol—Refrigerators—Southern Refrigerator Co. increased capital from \$400,000 to \$625,000.

### Gas and Oil Enterprises.

Ky., Blaine—Overda Oil Co., capital \$10,000, inceptd. by G. W. Kouns, G. V. Button and H. H. Gambill.

Ky., Lexington—Refining—Blue Grass Re-

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fining & Producing Co., capital \$50,000, inceptd. by A. V. Smith, Jr., Walter R. Powell and J. F. Whorton.

Ky., Louisville—Wolf Lick Oil Co., capital \$50,000, inceptd. by L. Jennie and Joseph Jacobson.

La., Alexandria—White Oil Co., capital \$10,000, inceptd. with J. F. Ball, Prest.; I. B. White, V.-P.; A. S. Davis, Secy.-Treas.

La., Oil City—Refining—Union Oil Refining Co., A. Mathis, Shreveport, La., capital \$1,000,000; acquired plant of Union Refinery & Pipe Line Co.; plans increasing plant capacity.

Md., Baltimore—National Royalties Co., 1010 Keyser Bldg., capital \$500,000, inceptd. by Pauline Clotfi, Elsie E. Hoch and L. Ruth Athey.

Md., Curtis Bay Sta., Baltimore—Brooklyn and Curtis Bay Gas Co., capital \$100,000, Thomas H. Horton, Emil Eiselet and Louis Steiner have plans for incorporation.

Okla., Bartlesville—R. W. Rine Drilling Co., capital \$40,000, inceptd. by R. W. Rine, Kaw City, Okla.; Jas. Brann Bartlesville; C. C. Rine, Burbank, Okla.

Okla., Oklahoma City—Detroit Oil Co., capital \$10,000, inceptd. by F. B. Boyett, V. H. Combs and J. H. Woods, Jr.

Okla., Tulsa—Center Oil Co., capital \$50,000, inceptd. by Remington and Agnes N. Rogers and Merwin Haven.

Tex., Dallas—Elvaro Oil Co., capital \$10,000, inceptd. by W. A. Aggers, C. F. Mauldin and R. E. Orr.

Tex., Dallas—Iron City Oil Corp., capital \$11,000, chartered by J. P. Gross, J. D. Stinson and L. M. Bryant.

Tex., Houston—Araz Oil Co., capital \$100,000, inceptd. by G. P. Khoubesser, F. L. Mays and E. F. Gibbons.

Tex., Houston—Baker Oil Co., capital \$300,000, inceptd. by W. W. and W. R. Porch, and C. A. Lewis.

Tex., Orange—Hamilton Oil Co., capital \$5,000,000, organized with W. R. Hamilton, Prest.; H. P. Ingles, 1st. V.-P.; Jas. N. Kincaid, Secy.; formerly Oil Issue Co.

Tex., San Antonio—Blue Bell Oil & Gas Co., capital \$200,000, inceptd. by W. L. Eaves, A. G. Edmonson and A. L. Dickinson.

Tex., Texas City—Texas City Oil Corp., capital \$10,000, inceptd. by C. Hallenborg, R. R. Spence and Tom Eaton.

Tex., Wichita Falls—Grayce Oil Co., capital \$150,000, inceptd. by W. K. and S. J. Campbell and Carl Pursel.

W. Va., Clarksburg—Little Hocking Valley Oil & Gas Co., capital \$50,000, inceptd. by Geo. W. McQuain, Harvey V. Varner; both Clarksburg; Wm. A. Means, Burnsville, W. Va.

### Ice and Cold-Storage Plants.

Ark., Little Rock—Pulaski Ice Co., W. F. Moody, Prest. let contract to Moody, Knight & Lewis to erect 10 ton ice plant; install \$15,000 mchy. (Lately noted.)

D. C., Takoma Park—Takoma Park Ice & Ice Cream Co., A. G. Bailey, Prest.; John Humphreys, Secy.-Treas. and Mgr. let contract to D. E. Nichol, Continental Trust Bldg., Washington, D. C. at \$19,000 to erect 1 story 57x82-ft. and 1 story 25x52-ft. buildings; brick, reinforced concrete construction; slag roof; mchy. purchased; daily capacity 60 tons ice, 120 tons storage; later to erect ice cream plant; K. W. Schantz, Archt. Const. Engr., Buffalo, N. Y. (Previously noted inceptd., capital \$85,000.)

Fla., Bristol—D. H. Freeman plans erecting cold storage plant.

Fla., Pablo Beach—J. A. Bussey, Mayor interested in establishing 30 ton ice and cold storage plant.

Okla., Muskogee—Southern Fish & Oyster Co., 24th St. has under construction \$40,000 ice and cold storage plant.

Okla., Stroud—O. Y. Hubble, Prest., Commercial Club, interested in establishment of ice plant.

Tex., Cleburn—Sante Fe Ice & Storage Co., capital \$60,000, inceptd. by C. G. Campbell, J. B. Murphy and F. J. Phillips.

Va., Hopewell—W. A. Smith, A. C. Akers and others, erect ice plant, install electric drive mchy.; install 100x200-ft. site.

W. Va., Man—Man Ice & Supply Co., capital \$25,000, inceptd. by Okey Chambers, Man; Bennett Russell, Huntington, W. Va. and Leander Justice, Manbar, W. Va.

### Land Development.

Ala., Tuscaloosa—Junior Chamber of Commerce interested in establishing municipal park.

Ark., Springdale—Welch Grape Juice Co., Westfield, N. Y. purchased 100-acre site for planting grape roots; plans securing additional sites for vineyards. (See Miscellaneous Factories.)

Ga., Milledgeville—J. L. Beeson, Sam. C. Patterson, L. C. Hall, etc., establish pecan nursery; 15 acres planted.

Ky., Louisville—D. C. Clarke, Porter Bibb, Paul Semonin, Wallace McKay, plan purchasing site in suburbs to develop for playground and community center.

Md., Cumberland—B. L. Gibbs & Son Co., 1 N. Liberty St., capital \$25,000, inceptd. by Bradford L. and Bradford C. Gibbs, and Henry N. Dressman.

Miss., Gulfport—Gulf Coast Development Corp., capital \$250,000, organized to develop and plant orchards of grapefruit, figs, etc. Address Charles W. Gormley, Atty., New York City.

N. C., Asheville—City plans improving parks, streets, etc.; John Nolen, City Planner, Cambridge, Mass.

N. C., Concord—Orchard Produce Co., capital \$25,000, inceptd. by W. A. Foll and others.

N. C., Dobson—Mitchell's River Orchard Co., capital \$100,000, inceptd. by B. H. Thompson and others.

N. C., Rockingham—Robert L. Steele, 3rd., capital \$100,000, inceptd. by Arthur L. Sr., Martha S. and R. L. Steele, 3rd.

N. C., Statesville—City acquired 30-acre tract; will develop for park. Address The Mayor.

Okla., Altus—City will improve parks. Address The Mayor.

Okla., Bristow—City will improve parks; voted Mch. 21 on \$20,000 bonds. Address The Mayor.

Tenn., Knoxville—N. E. Logan purchased tract on Kingston pike; plans developing for residential section.

### Lumber Manufacturing.

Fla., Jacksonville—Putnam Lumber Co. rebuild plant burned at loss of \$10,000. Address Gen. Mgr. Fleischer.

Fla., Jacksonville—Underwood Lumber Co., capital \$50,000, inceptd. with William G. Underwood, Prest.; James Lord, Secy.-Treas.

Ky., Jeff—Equitable Lumber & Supply Co., Leslie Picklesimer, Prest.-Mgr. will erect office building, lumber sheds and machine shop, construction by owner; install dry

kilns, pumps and woodworking mchy. Lately noted. See Mchy. Wanted—Pumps (Electric); Woodworking Machinery.)

La., Lake Charles—Powell Lumber Co. purchased holdings of Miller-Link Lumber Co., in La. and in counties of Jasper, Orange, and lower Newton in Tex.

Miss., Hattiesburg—Bertha Lumber Co., R. N. Steadman, Prest., increased capital from \$30,000 to \$75,000.

Miss., Hattiesburg—Bertha Lumber Co., R. N. Steadman, Prest. increased capital from \$30,000 to \$75,000.

Miss., Meridian—Mayerhoff Lumber Co., capital \$25,000, inceptd. by G. E. Mayerhoff, Jno. M. Broach and others.

Tex., Alpine—Alpine Lumber Co., increased capital from \$30,000 to \$75,000.

Tex., Dallas—Oldham & Sumner Lumber Co., capital \$100,000, inceptd. by B. F. Sumner, W. O. Oldham and H. C. Watson.

Tex., Houston—Heyman-Pate Lumber Co., capital \$50,000, inceptd. by W. H. Heyman, J. E. Pate and C. W. Richards.

### Metal-Working Plants.

D. C., Washington—Cookers—Wonder Cooker Co., capital \$50,000, inceptd. by Todd O. Thomas, Samuel Ford Biddle and Charles A. H. Bailey.

Ky., Louisville—Semaphore—Safety Semaphore Co., increased capital from \$20,000 to \$75,000.

N. C., Charlotte—Household Articles—Vacuette Sales Co., capital \$20,000, inceptd. by C. M. Prince, M. T. Cranford and V. B. Gallamore.

Okla., Oklahoma City—Non Corrosive Metal Co., capital \$200,000, inceptd. by George G. Sohlberg, C. J. Rath and Charles Edward Edwards.

Okla., Oklahoma City—Automobile Devices—Nu Auto Device Mfg. Co., inceptd. by J. T. Pugh, L. B. Clark and S. D. Rogers.

S. C., Columbia—Saws—J. H. Miner Saw Mfg. Co., will rebuild 50x70-ft. building, has mchy. for mfre. and repairing of saws. (Lately noted plant burned at loss of \$30,000.)

S. C., Greenville—Draft Regulators—Southern Draft Regulators Co., A. M. Oeland, Prest., 303 Wallace Bldg. contemplate the mfre. of regulators, interested in prices on galvanized iron, sheet copper, black sheet iron, small angle iron, piping, pipe fittings and coverings; at present will contract for mfre. of regulators. (See Machinery Wanted—Metal Working; Copper, Iron, etc.; Piping, etc.)

Tex., Dallas—Electric Signs, etc.—Caruthers-Stuart Sign Co., 2814 Main St., inceptd. by R. A. Caruthers, A. E. Stuart and L. E. McGee; mfre. electric signs, bulletins, etc.

### Mining.

Ala., Russellville—Asphalt—Muscle Shoals Rock Asphalt Co., capital \$1,000,000, inceptd. with C. E. Dexter, Prest., Louisville, Ky.; acquired 3000 acres asphalt rock land; erect plant, daily capacity 1000 tons; W. J. Borries, Ch. Engr., C. J. Stillers, Const. Engr., both Louisville.

Miss., Golden—Gravel—Golden Gravel Co. reported to install washing and screening plant, daily capacity 20 cars washed sand and gravel.

Mo., Phoenix—Marble—Phoenix Marble Co., Martin Simpson, Prest., Kansas City, Mo. has under construction \$60,000 power plant, double plants capacity.

Mo., Poplar Bluff—Clay—Missouri Clay Mining Co., capital \$100,000, inceptd. by

John Denton, Ozark, Mo. and others; acquired 640 acres ceramic clay deposits, develop.

Tenn., Harriman—Rock—Harriman Cement & Stone Co. (lately noted increased capital to \$60,000) has plant and mchy. all installed, daily capacity 200 yds. crushed rock. (See Mchy. Wanted—Truck Bodies.)

Tex., Dallas—Gillespie County Mining Co., capital \$10,000, inceptd. by Alex. Sanger, G. C. Nunnally and A. E. Moore.

W. Va., Huntington—Sand and Gravel—National Sand and Gravel Co., J. L. Richmond, Prest., will produce 1500 tons sand and gravel from bed of Ohio river.

### Miscellaneous Construction.

Fla., Anona—Seawall, etc.—A. T. Le Vascotte received contract to construct seawall at Haven Beach, fill for road and road surface; \$9300; Mr. Marlin, City Engr.

Fla., Fort Lauderdale—Harbor Improvements—Broward County Commrs. will make harbor and river improvements, dredge inlet to Atlantic Ocean and construct jetties; Geo. B. Hills Co., Engr. (Lately noted voted \$100,000 bonds.)

Fla., St. Petersburg—Harbor Improvements—G. B. Shepard, Director of Finance will construct 300 ft. bulkhead at city wharf, Bayboro harbor; reinforced concrete sheet pile construction; bids until Mch. 27. (See Mchy. Wanted—Bulkhead.)

La., Lake Charles—Harbor Improvements—Calcasieu Parish Police Jury, vote June 15 on bonds for construction of deep water way. (Lately noted to vote Mch. 28.)

Miss., Biloxi—Pier—J. H. Etter, interested in building amusement pier; submitted plans to Chamber of Commerce.

Miss., Clarksdale—Levee—Yazoo Mississippi Delta Levee Commrs. approved proposed construction of 21 mi. of levee extending from Brunswick to point opposite Vicksburg; estimated cost \$1,500,000; reclaiming about 250,000 acres land in Sharkey, Holmes, Le-flore, Yazoo and Humphrey Counties.

Mo., Cameron—Elevator, etc.—Cameron Co-operative Elevator Assn. let contract to erect 12,000 bu. elevator, and 24x100-ft. warehouse and basement, reinforced concrete construction; P. M. Duckler, Const. Engr. (Lately noted.)

N. C., Asheville—Swimming Pool—Blitmore Forest Country Club, Thomas Wadley Raoul will construct 50x100-ft. pool, capacity 265,000 gals. water; excavation completed; Charles E. Waddell, Engr.

S. C., Greenville—Stand Pipe—City let contract to R. D. Cole, Co., Newman, Ga., to erect standpipe, approximately 1,000,000 gals.; to Fliske-Carter Construction Co., Greenville, for building concrete foundation; total cost \$35,000. (Supersedes recent item.)

Tenn., Memphis—River Terminals—City, Rowlett Paine, Mayor, plans constructing river terminals and warehouse; will issue \$150,000 bonds.

Tex., Houston—Harbor Improvements—Thomas H. Ball, Chrmn. Harbor Board, reports \$1,000,000 may be available in next 12 mo. for development of ship channel; project calls for 10 ft. channel, 60 ft. wide from turning basin to foot of main street.

### Miscellaneous Enterprises.

Ala., Alexandria—Potato Curing—Farmers' Co-Operative Club interested in establishment of sweet potato curing house.

Ala., Birmingham—Transfer, etc.—Summers Transfer & Storage Co., capital \$10,000, inceptd. by James R. Reynolds, Roy B. and Elizabeth Summers.

Ala., Birmingham—Deliveries—P. and A. Messenger Co., inceptd. by J. F. Buckshaw, George E. Petty and F. N. Allen.

Ala., Elba—Hardware—Edwards-Rainer Hardware Co., inceptd. by J. E. Edwards, J. B. Amos and O. S. Rainer

Ala., Montgomery—Abattoir—Montgomery Abattoir Co., capital \$50,000, inceptd. by Harry E. Snow, William A. Bellingrath and B. P. Crum; erect abattoir according to Government plans.

Ala., Sylacauga—Potato Curing—J. W. Brown and others plans erecting 5000 bu. capacity potato curing house.

Ark., Fort Smith—Incinerator—City Commr. Mack Miller, authorized to obtain data on construction of municipal incinerator.

Fla., Jacksonville—Steamship Lines—Floridian Trading Corp., capital \$150,000, chartered with Emory C. Meek, Prest.; F. I. Maynard, Secy.; E. K. Sharlow, Treas.; steamship lines to Havana, Cuba, Porto Rica and Venezuela ports.

Fla., Miami—Undertakers—Karnatz-Schnorr Co., capital \$50,000 inceptd. with J. F. Karnatz, Prest.; P. M. Schnorr, Secy.-Treas.

Fla., Tallahassee—Printing—J. T. Apple-yard plans erecting printing plant, purchased site.

Ga., Columbus—Abattoir—Chamber of Commerce, interested in establishing abattoir and stockyards; H. Lane, Chrmn. rural department.

Ky., Knoxville—Incubators—S. A. Keller plans organizing company to mfr. self-invented incubator.

Ky., Paducah—Plumbing—Economy Plumbing Co., inceptd. by J. F. Wright, D. H. Maxie and D. W. Chesterfield.

Md., Baltimore—Steamship Line—Gladding Express Co., Pier 4, Light St., increased capital to \$100,000; establish steamer service between Baltimore and Cambridge.

Md., Baltimore—Distributors—Electric Products Co., 500 St. Paul St. (lately noted inceptd., capital \$50,000) organized with A. Norman Gallagher, Prest.; Edgar M. Clark, Secy.-Treas.; distributor for light and power plants, automatic water systems. (See Machinery Wanted—Automatic Water System.)

Md., Cumberland—Publishing—Leader Publishing Co., 48 Harrison St., (lately noted inceptd., capital \$50,000) organized with C. L. Weymouth, Prest.-Mgr.; Z. C. Weymouth, Secy.-Treas.; has building, will probably build 2-story addition later this year

Mo., Kansas City—Fire Alarm System—City plans installing fire alarm system; bidders are: Gamewell Fire Alarm & Telegraph Co., 70 E. 45th St., New York and Carnahan Mfg. Co., Cleveland, O. Address Fire Commrs.

Mo., Mexico—X-Ray Equipment—Andrain County Hospital, Board of Mgrs., plan installing X-ray equipment.

Mo., Springfield—Laundry—Snow White Laundry Co., has plans for laundry plant.

N. C., Winston-Salem—Abattoir—W. W. Whitman plans building abattoir.

Okla., Chickasha—Fire Fighting Equipment—City install fire alarm system, costing \$12,000, and expend \$22,000 on equipment and supplies. Address Mayor Coffman.

Okla., Henryette—Fire Equipment—City will vote Mch. 30 on \$25,000 bonds for fire equipment. Address The Mayor.

Okla., Oklahoma City—Hardware—Oklahoma City Hardware Co., capital \$250,000,

inceptd. by S. E. Clarkson, A. W. Boyd and W. H. Vick.

Okla., Tulsa—Printing—Beacon Printing Co., \$20,000, inceptd. by Thos. R. McCabe, M. L. Duke and H. C. Pester.

S. C., Charleston—Hardware—C. D. Franke & Co., George W. Bowers, Secy., increased capital to \$110,000.

S. C., Columbia—Construction—Service Building Co. inceptd. by J. Hughes and Daniel W. Cooper.

S. C., Conway—Potato Curing—H. L. Buck, chrmn. of Committee, will erect 15,000 bu. capacity potato curing house. (Lately noted.)

S. C., Florence—Construction—Harlee Thrash Construction Co., capital \$30,000; inceptd. by H. L. Harlee, J. L. Thrash and H. F. Dargan.

S. C., Simpsonville—Potato Curing—Agricultural Products Warehouse Co., H. M. Moore, Prest.; establish 15,000 bu. capacity potato storage house.

Tenn., Chattanooga—Dry Cleaning—Model Dry Cleaning Co., increased capital from \$15,000 to \$20,000.

Tenn., Knoxville—Construction—Crippen Construction Co., increased capital from \$25,000 to \$50,000.

Tenn., Knoxville—Machinery Supplies—Duncan Mchy. Co., Dempster Bldg., 721 N. Central St., capital \$10,000, inceptd. by John G. Duncan and others.

Tenn., McKenzie—Laundry—L. G. Hartzog, acquired building, remodel for steam laundry plant.

Tex., Dallas—Undertaking—People's Undertaking Co., capital \$10,000, inceptd. by W. E. Ewing, J. P. and F. E. Starks.

Tex., Dallas—Dairy—North Texas Farm Bureau Dairymen's Asso., R. L. Mullins, Prest., has site to establish receiving and distributing milk plant, daily capacity from 4000 to 5000 gals.; estimated cost \$60,000.

Tex., Kennerly—Hardware—Kennerly Hardware Co., capital \$50,000, inceptd. by S. J. Kennerly, W. B. McKinney and others.

Tex., Waco—Pasteurizing—Pasteurizing Milk Co., 107 North St. (lately noted inceptd., capital \$15,000) organized with G. W. Ray-alty, Prest.; J. B. Gasser, Secy.-Treas. and Mgr.; had building, will install \$15,000 mchy.

W. Va., Elkins—Construction—Dayton Construction Co., capital \$10,000, inceptd. by R. S. Dayton, N. G. Scott, both Elkins; R. B. Harris, Beverly, W. Va.

W. Va., Wheeling—Laundry—Wheeling White Wet Wash Co., J. L. Heater and B. F. Satterfield, Proprs., Charleston, W. Va. leased building, install mchy., capacity 1000 family washings per week; mchy. purchased.

W. Va., Wheeling—Undertaking—Altmeyer & McCoy purchased property with 49 ft. frontage, remodel for undertaking establishment.

### Miscellaneous Factories.

Ala., Bayou Labatre—Buttons—Henry Ritka, Escatawpa, Miss., secured site; plans erecting \$100,000 factory to mfr. buttons from muscle shells; install 50 saws.

Ark., Pine Bluff—Drugs—Dewoody Drug Co., capital \$100,000, inceptd. with Joe Sloss, Prest., Lake Village, Ark.; T. Sorrells Dewoody Secy., Treas. and Gen. Mgr. Pine Bluff; acquired plant of W. L. Dewoody & Co.

Ark., Springdale—Grape Juice—Welch Grape Juice Co., Westfield, N. Y., purchased site; may expend about \$300,000 to erect initial plant to mfr. grape juice and other products; secured 100-acre site near Springdale for planting grape roots.

D. C., Tacoma Park—Tacoma Park Ice &

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Ice Cream Co., John Humphrey, Mgr., contemplates erecting ice cream plant in connection with ice plant. (See Ice and Cold Storage Plants.)

Fla., Tampa—Pineapple Products—Pineapple Products Co., Curry Bldg., capital \$50,000, inceptd. with Henry O. Page, Prest.; J. F. O'Hanlon, V.-P.; C. Wade Page, Secy.-Treas.; Wm. B. Hill, Gen. Mgr.; leased site; erect plant to mfr. pineapple syrup, phosphate, vinegar, etc.; contract let for mchy.; also mfr. fertilizer.

Ky., Catslettsburg—Ice Cream—Big Sandy Ice Cream Co., Frank Tabot, Propr., plans remodeling plant; erect additional story to structure; install additional mchy.

Ky., Louisville—Wall Paper, etc.—Hubbuck Brothers & Wellendorf, increases capital from \$75,000 to \$125,000.

La., West Monroe—Drug—City Drug Co., capital \$15,000, inceptd. with F. C. Ammon, Prest.; L. F. Rolfeigh, V.-P.; both Monroe; F. M. Grant Secy.-Treas., West Monroe.

Md., Baltimore—Alum—Public Improvement Comsn., Robert Garrett, Chrmn., plans expending about \$10,000 to establish plant to mfr. alum for filter beds; Henry G. Perling, Ch. Engr.

Md., Baltimore—Refinery—American Sugar Refining Co., erect 1-story 72.9x61.9 ft., brick, steel and concrete building; Chas. T. Main, Archt., Stone & Webster, Contrs.; all 1100 E. Clement St.

Md., Baltimore—Bakery—Louis C. Schneider, 622 Arlington Ave., plans expending about \$40,000 to erect 260x210x140-ft. fireproof building; bids until Apr. 1; install about \$15,000 for machinery for bread making, etc.; J. H. Stehl, Archt., 3920 Ridgewood Ave. (Lately noted.)

Md., Baltimore—Overalls—Central Overalls Co., 15 N. Liberty St., leased second floors of building; 14,000 sq. ft. floor space; mfr. overalls.

Md., Baltimore—Yeast—Liberty Yeast Corp., W. A. Boykin, Jr., Mgr., 4400 O'Donnell St., will expend about \$15,000 to erect 65x30 ft. addition to ferment house; installing equipment to produce industrial alcohol.

Md., Hagerstown—Soft Drinks—Hagerstown Bottling Works, inceptd. by Albert E. Draper, R. J. Shine and Chas. E. Hammond.

Mo., Marshall—Ice Cream—W. C. Fisher and Tom Thorp, plan establishing ice cream factory.

Mo., Pierce City—Shoes—Juvenile Shoe Corp., Anurora, Mo., contemplates establishing branch plant to mfr. shoes.

N. C., Burlington—Creamery—Alamance Co-Operative Creamery Co., capital \$50,000, organized to mfr. ice cream, butter and cheese.

N. C., Burlington—Ice Cream—Arctic Ice Cream Co., Greensboro, N. C., purchased plant of May Ice Cream Co.; is improving. Mr. Kevitt, Local Mgr.

N. C., Canton—Drugs—Champion Drug Co., capital \$150,000, inceptd. by Morris Littman, J. N. Haygood and Carroll V. Bell.

N. C., Charlotte—Storm Shields, etc.—Carva Sales Co., capital \$25,000, inceptd. by D. E. Henderson, Charlotte; W. H. and Charlotte W. Arrington, Greensboro, N. C.

S. C., Charleston—Food Products—Yours Truly Food Products Co., inceptd., by J. W. & Elizabeth K. Kiser.

N. C., Greenville—Bottling—Cherry Blossom Bottling Co., capital \$50,000, inceptd. by J. L. Perkins and others.

N. C., Lenoir—Creamery—Caldwell County Co-Operative Creamery Co., John M. Crisp, Secy.-Treas., let contract to erect creamery

building; purchased machinery. (Lately noted.)

S. C., Greenville—Brooms, etc.—Greenville Workers for the Blind, organized with Miss Sallie Slaiten, Prest.; G. T. Williams, Secy.-Treas.; plans establishing plant for blind to mfr. fibre goods and brooms.

Tenn., Memphis—Ice Cream, etc.—Fortune's, W. H. Fortune, Union Ave. and Somerville St., increased capital from \$60,000 to \$100,000; plans erecting factory building; Mahan and Broadwell, Archts.; invites bids.

Tenn., Memphis—Chemicals—New Norma Chemical Co., inceptd. by D. E. Chamberlin, Gerald A. Cotter and W. H. Englehart.

Tenn., Memphis—Medicine—Heinemann Medicine Co., inceptd. by A. D. Heinemann, R. M. Parsons and J. L. Richards.

Tenn., Memphis—Cigars—Stag Co., capital \$10,000, inceptd., by R. H. Gotthelf, Sam A. Meyer and Wm. J. Haack.

Tenn., Nashville—Lion Mfg. Co., capital \$25,000, inceptd. by T. E. Truett, Wade R. Sperry and Frank G. Davis.

Tex., Ballinger—Overalls—T. S. Lankford, Owner Lankford Mattress Factory, will establish plant to mfr. overalls; secure 9000 sq. ft. floor space.

Tex., Dallas—Belting—Dallas Belting Co., capital \$20,000, inceptd. by L. C. Brooks, J. O. Long and H. L. Cook.

Tex., Dallas—Candy—Northwest Candy Co., 242 Western Indemnity Bldg., capital \$100,000, inceptd. with Jas. Bossey, Prest.; S. O'Neill, 1st V.-P.; W. O. Tubbs, Secy.-Treas.; plans erecting 25,000 lbs. daily capacity candy plant.

Tex., Dallas—Confectionery—Goelitz Confectionery Co., E. F. Kelley, Secy.-Treas., North Chicago, Ill., leased 2-story 90x50-ft. building; will install plant to mfr. candy.

Tex., Dallas—Hats—Willard Hat Co., capital \$60,000, inceptd., H. P. Willard, W. A. Ballard and H. Tobolowsky.

Tex., Dallas—Ink—Daniels' Chemical Proof Ink Paper Co., 2212 Live Oak St., establishing plant to mfr. chemical proof, non-corrosive ink.

Tex., Dallas—Waxed Paper—Trinity Paper Mills Co., J. Y. Webb, Prest., 3010 Williams St., purchased site; will erect steel construction plant to mfr. waxed paper.

Tex., El Paso—Ice Cream Baseball—Elite Chocolate Coated Baseball Co., capital \$60,000, inceptd., with R. G. Martin Prest. and Gen. Mgr.; J. E. Benton, V.-P. and Treas.; H. Burroughs, Secy.

W. Va., Huntington—Candy—Huntington Preserving Co., will install 1500 lbs. daily capacity candy factory to plant.

W. Va., Marion County—Ice Cream—Diamond Ice Cream Co., capital \$50,000, inceptd. by E. C. Frame, H. T. Sharp and J. W. Preston; all Fairmont, W. Va.

W. Va., Princeton—Drugs—A. P. C. Corp., capital \$1,000,000, inceptd., by R. R. Bodell, G. L. Todd and E. H. Witten.

### Motor Cars, Garages, Tires, Etc.

D. C., Washington—Filling Station, etc.—Allan E. Walker Investment Co. will remodel 40x43-ft. store and filling station; R. F. Beresford, Archt., Southern Bldg.

D. C., Washington—Garage, etc.—Maryland Battery Co. will occupy 30x106-ft. garage and service station, reinforced concrete construction; stone and ornamental iron exterior; steam heat and electricity; to be erected by Allan E. Walker Investment Co.; Robert F. Beresford, Archt.

D. C., Washington—Motors—Handley Mo-

tor Co., capital \$20,000, inceptd. by Wm. H. Handley, Washington; Dr. James A. Emery, Chevy Chase, Md. and Horace Burroughs, 222 Woodlawn Rd., Roland Park, Md.

Ky., Ashland—Automobile Supplies—Rucker Auto Supply Co., capital \$25,000, inceptd. by J. G. Rucker, B. S. Wilson and J. M. Montgomery.

Ky., Irvington—Motors—Irrington Motor Co., capital \$10,000, inceptd. by J. M. Horn-don, G. H. Board and O. F. Brite.

Ky., Paducah—Repairing—Battery Service Co., inceptd. by E. H. Pope, J. V. Potter and J. M. Walton.

Ky., Paintsville—Garage—Big Sandy Auto Co., organized with John B. Wells, Prest.; B. H. Cox, V.-P.; B. H. Conley, Secy.-Treas. and Mgr.; has 50x100-ft. garage, concrete block construction, 10,000; mchy installed. (Lately noted inceptd., capital \$25,000.)

Md., Baltimore—Garage—Harry L. Stewart, V.-P., Stewart Taxi Service Co., Morton Alley, between Read and Eager Sts., let contract to Consolidated Engineering Co., Calvert Bldg., at \$40,000 to erect 3-story 90x100-ft. garage, reinforced concrete and brick construction, capacity 120 automobiles; William W. Emmart, Archt.

Md., Baltimore—Garage, etc.—Mary M. Whitehurst let contract to Gladfelter & Chambers, 36 Roland Ave., to erect 2-story 61-ft. 9-in.x29-ft. 6-in. brick garage, slate roof; hot water heat; estimated cost \$18,000; Parker, Thomas & Rice, Archts., Union Trust Bldg.

Md., Baltimore—Garage—John S. Steigler, 1516 N. Gay St., let contract to Garage Construction & Investment, 215 E. Fayette St., to erect 45x100-ft. 1-story garage; fireproof; slag roof; steam heat. (Lately noted to erect.)

Miss., Crystal Springs—Garage—Joe Wise, Hazlehurst, Miss. plan erecting 2-story brick garage; purchased site.

Mo., Poplar Bluff—Tires—Poplar Bluff Tire Co., capital \$100,000, mfr. cushion inner tires. Address Chamber of Commerce.

N. C., Charlotte—Garage, etc.—B. D. Heath Motor Co., inceptd. by B. D. Heath, Jr., and others.

N. C., Charlotte—Repairing—Used Car Sales Co., capital \$50,000, inceptd. by J. H. Van Ness, Jr., John Bass Brown and Wallace F. Kilgo.

S. C., Charleston—Repairing, etc.—Auto Repair & Parts Co., inceptd. by H. B. Sparkman, A. R. Dutes and J. M. Dawson.

Tenn., Memphis—Repairing—Auto Pull-In Corp., chartered by Charles W. Wright, W. D. King and Benjamin Weinkrantz.

Tenn., Memphis—Garage, etc.—Newsom Auto Tire Vulcanizing Co., S. 4th. St., let contract to J. Walter Jones to rebuild burned plant, also leased adjoining building, remodel, giving company 144x146-ft. space; construction under supervision of Emmett E. Joyner & Co.

Tex., Beaumont—Tires—H. L. Blanchett Tire Co., capital \$10,000, inceptd. by H. L. Blanchett, L. J. Coward and R. F. DuBois.

Tex., Highland Park—Garage, etc.—Highland Park Garage & Tire Co., inceptd. by F. K. Garver, W. T. Davidson and M. C. Carver.

Tex., Houston—Automobile Batteries—Chain Battery System, Lake Charles, La., will remove plant to 2019 Franklin Ave., develop larger plant.

Tex., San Antonio—Garage—Dr. H. H. Ogilvie, erect garage building; Adams & Adams, Archts.

Tex., San Antonio—Garage—T. P. Roberts, erect garage building; Emmett Jackson, Archt.

W. Va., Huntington—Tires—Liberty Airless

Tire Co., C. Lewis Wilson, Parkersburg, W. Va., reported to negotiate for site to establish plant for mfrs. of tires, daily capacity 2000.

W. Va., Jaeger—Garages—Hill Motor Co., plans erecting two buildings, one 3-story 60-ft. front, and one 2-story, both brick construction; estimated cost \$75,000.

### Railway Shops, Terminals, Roundhouses, Etc.

Miss., Gulfport—Gulf & Ship Island R. R., W. H. Gardner, Jr., Ch. Engr. will build 75x200-ft. building costing \$40,000 and 105x220-ft. building costing \$35,000; fireproof; used as machine shop, engine house, boiler and blacksmith shops; construction by city forces. (Lately noted.)

### Railways.

Mo., St. Louis—St. Louis-San Francisco Railroad Co. has let contract to Grant Smith & Co., of St. Paul, Minn., to build second main track between Windsor Springs and Valley Park, Mo., about 5 mi.; also for grade reduction at Garney and Crocker, Mo., and 3 1/4 mi. of second track at Swenborg, Mo.

N. C., Hiddenite—Construction reported began on 6 mi. railroad from Hiddenite to Rocky Face Mountain for Alexander Land & Granite Co., J. M. Deaton, Statesville, N. C., Pres., the Teale Construction Co., Durham, N. C., having contract.

Okla., Clinton—Incorporation papers are being prepared for a railroad company to build a line from Clinton to Taloga, Okla., 35 mi. Business men are back of the plan and survey will be made. Address Railroad Committee.

Okla., Dougherty—Continental Asphalt & Petroleum Co., Oklahoma City, Okla., will not make the proposed extension of their railroad into the Arbuckle Mountains at this time.

Tenn., Jamestown—Survey under way by Bruno Gernt for railroad from connection with Oneida & Western Railway near here to Buffalo Cove coal mines line to be 10 or 12 mi. long. O. H. Anderson, president Oneida & Western Ry., Oneida, Tenn., may give information.

W. Va., Morgantown—Monongahela Railway Co. does not expect to do anything this year on the proposed improvements to Maidsville yards, passing tracks, etc., recently noted. D. K. Orr, Brownsville, Pa., is Supt.

### Road and Street Construction.

Ala., Birmingham—Jefferson County Board of Revenue will construct 12-mi. Ensley-Mulga-Edgewater-Wylam and Parkstown Road; bituminous top placed on reconstructed slag or chert foundation; 20,000 sq. yds.; 10-mi. Warrior-Robbins road; 20,000 cu. yds. cinders of chert surfacing; 12-mi. Elbow to Port of Birmingham road; 24,000 cu. yds. cinders or chert surfacing; 5-mi. Trussville-County line road; 10,000 cu. yds. chert, slag or cinder surfacing; 6-mi. Bradford-Trafford road; 39,000 cu. yds. grading; 5 mi. Filter plant to Overton Mine road; total cost \$550,000; bids until Apr. 11; C. J. Rogers, County Highway Engr. Lately noted. (See Mch. Wanted—Road Construction.)

Ala., Decatur—Morgan County Board of Revenue will construct 7.4-mi. extension of Falkville west pike from McKendree Chapel west to Danville and Bashams Gap road; 14.6-mi. Decatur and Danville road; 14.6-mi. extension of Falkville east pike; 3-mi. from Eva north to Oden Ridge schoolhouse; 7.4-mi. Decatur and Sommersville pike; 5.6-mi. Flor-

ette and Ryans X roads; 7.9-mi. Hartselle and Valhermosa pike; 3.2-mi. Flint and Danville road; etc.; bids until April 12; L. P. Troup, Judge of Probate. (See Mch. Wanted—Road Construction.)

Ala., Haleyville—City plans grading streets. Address The Mayor.

Fla., Chipley—City, Ed. Standerfer, Clk., will construct 2-mi. street paving; asphaltic concrete or concrete; 40,000 sq. yds. concrete sidewalks; low bidders are W. P. Kennedy Co., Quincy, Fla.; Davis Constr. Co., Macon, Ga., and Campbell & Co., Columbus, O.

Fla., Fort Lauderdale — City plans voting on bonds for street improvements. Address The Mayor.

Fla., Fort Lauderdale — Broward County will construct roads including widening and rebuilding Dixie Highway 26 mi.; \$600,000 available; Frank A. Bryan, Clk. County Commrs.; H. C. Davis, Engr. (Lately noted voting bonds.)

Fla., Jacksonville — City Comsn., Frank Owen, Chrmn., let contract to J. F. Morgan Paving Co., Birmingham, Ala., at \$86,742.80 for repaving thoroughfare from Orange to 8th St.; natural lake asphalt.

Fla., Tampa—City, Chas. H. Brown, Mayor Commr. will grade, pave and curb Packwood Ave., 3870 sq. yds. asphalt blocks; 2540 lin. ft. curbing; 6900 sq. yds. pavement on S. Dakota Ave.; 2 1/2-in. asphalt blocks; 1600 lin. ft. curbing, etc.; bids opened Mch. 21. (See Mch. Wanted—Paving.)

Fla., Wauchula—Hardee County plans road construction; H. S. Jaudon Engineering Co., Engr.

Fla., Williston—Town, A. B. Jarrell, Pres., Council will sell \$12,000 paving bonds.

Ga., Cedartown—State Highway Dept. of Georgia, Atlanta, Ga., will receive bids at office of First Road Div., Rome, Ga., Apr. 1 for constructing 1-mi. Cedartown-Rockmart highway, chert surfaced roadway; Section A; Federal Aid Project No. 215; A. A. Simonton, Div. Engr. State Highway Dept., Rome, Ga. (See Mch. Wanted—Road Construction.)

Ga., Rome—Floyd County and State Highway Comsn., Atlanta, Ga., will construct 5 1/2-mi. Summerville road from Armuchee to Chattooga county line. Address Board of Roads and Revenues, Rome, Ga., or State Highway Comsn., Atlanta, Ga.

Ga., Valdosta—City, W. H. Gainey, Engr., will pave 10,500 yds. street paving; 4500 yds. concrete sidewalks; 7000-ft. granite curb; etc.; bids until April 20. (See Mch. Wanted—Paving.)

Ky., Catlettsburg—City, W. E. Crace, Clk., will grade and pave Louisa road from 36th St., Walnut St. from 25th to north line of 24th St.; etc.; bids until Mch. 31. (See Mch. Wanted—Paving.)

Ky., Covington—Kenton County, John W. Middendorf, Clk., will sell \$500,000 road and bridge construction bonds.

Ky., Louisville—Board Public Works let contracts to L. R. Figg Co., Henry Bickel Co., and Louisville Asphalt Co., at \$90,525 for reconstructing 1 mi. streets including 8th, 18th, Baxter Ave., etc. (Lately noted inviting bids.)

La., Alexandria—City, V. M. Ake, Secy., will construct curbing with cement on both sides 13th St. from Gould Ave. to Park Ave.; bids until Apr. 3.

La., DeQuincy—City will construct 4 mi. sidewalks; cost \$25,000; bids in near future; Shuts & Sons, Engrs., Lake Charles, La.

La., Greensburg—St. Helena Parish Police Jury will sell \$50,000 road construction bonds; Chas. T. Allen, Secy.

La., Hammond—City, C. C. Carter, Mayor,

will sell \$55,000 street and \$20,000 paving bonds.

Md., Rockville—Montgomery County Com. Mrs. will construct 1/2-mi. pike on Jones Mill road from Rockville pike to Brookeville road and 2/5-mi. Friendship Heights road from Rockville pike to River road; bids until Mch. 28; issue bonds.

Miss., Natchez—Adams County will construct 11 mi. road from Washington to Leesdale on line of Franklin County; voted \$40,000 bonds. (Lately noted to vote.)

Miss., New Albany—City, T. E. Marshall, Clk., will construct slag or macadam streets; bids to be opened. (See Mch. Wanted—Paving.)

Miss., Vicksburg—City let contract to Merrill Road Improvement Co., Chattanooga, Tenn., at \$22,500 for constructing 5025 sq. yds. paving; vertical fibre brick; 1000 lin. ft. sewer line; E. A. Garvey, City Engr., Vicksburg. (Supersedes recent item.)

Miss., Vicksburg—Warren County will construct 6.46 mi. Baldwin's Ferry road; bids until Apr. 4; Geo. Williamson, Secy., Highway Comms. (See Mch. Wanted—Road Construction.)

Mo., Bethany—State Highway Dept., Jefferson City, Mo., will construct 6.169 mi. State road from New Hampton eastward and westward; cost \$51,001.08; Harrison County, Federal Aid Project No. 50; A. C. Lingley, Div. Engr., Ballinger Bldg., St. Joseph, Mo.

Mo., Butler—State Highway Dept., Jefferson City, Mo., will construct 5.142 mi. State road from Amoret to Butte; Bates County, State Aid Project 20.151; H. P. Moberly, Div. Engr., Woodruff Bldg., Springfield, Mo.

Mo., California—State Highway Dept., Jefferson City, Mo., let contract to Jones & Jordan, St. Louis, Mo., at \$17,964.61, for improving Jamestown road. (Lately noted inviting bids.)

Mo., Carthage—Jasper County will construct 7 mi. grading and culvert work near Lawrence county; cost \$30,000; bids until Mch. 23. (See Mch. Wanted—Road Construction.)

Mo., Cassville—State Highway Dept., Jefferson City, Mo., let contract to Alexander & Baily, Cassville, Mo., at \$6722 for grading 3-mi. road in Barry County. (Lately noted inviting bids.)

Mo., Clinton—Henry County will construct 7-mi. road in Shawnee township; low bidder Maxwell Construction Co., at \$17,128.62; 7-mi. road in Clinton township; low bidder Davis Construction Co., Imboden, Ark., at \$87,667.60. (Lately noted inviting bids.)

Mo., Forsyth—State Highway Dept., Jefferson City, Mo., will construct 2.434-mi. State road from Forsyth southward; cost \$6,009.56; Taney County, State Aid Project 20.150; H. P. Moberly, Div. Engr., Woodruff Bldg., Springfield, Mo.

Mo., Gainesville — State Highway Dept., Jefferson City, Mo., will construct 21.214-mi. State road from Gainesville eastward; cost \$65,092; Ozark County, Federal Aid Project No. 111, Section B; bids until Mch. 28; H. P. Moberly, Div. Engr., Woodruff Bldg., Springfield, Mo. (See Mch. Wanted—Road Construction.)

Mo., Grant City — State Highway Dept., Jefferson City, Mo., will construct 1.181-mi. State road from Grant City southward; cost \$10,304.22; Worth County, State Aid Project 20.147; A. C. Lingley, Div. Engr., Ballinger Bldg., St. Joseph, Mo.

Mo., Hermitage—State Highway Dept., Jefferson City, Mo., will construct 6.693 mi. State road north and south through Hickory County; cost \$23,196.50; Federal Aid Proj-

ect No. 69; S. M. Rudder, Div. Engr., Sedalia, Mo.

Mo., Hermitage—State Highway Dept., Jefferson City, Mo., will construct 7.4-mi. State road from Preston northward and southward; cost \$42,010.14; Hickory County, Federal Aid Project No. 45; S. M. Rudder, Div. Engr., Sedalia, Mo.

Mo., Houston—State Highway Dept., Jefferson City, Mo., let contract to M. E. Gillioz, Monett, Mo., at \$35,966.38 for constructing 6.875 mi. State road from Cabool to Houston; Texas County, Federal Aid Project No. 90, Section B. (Lately noted.)

Mo., Huntsville—State Highway Dept., Jefferson City, Mo., will construct 1.549-mi. State road from Moberly westward; combination concrete header curb and base course with vitrified brick bituminous filler surface course, cost \$64,29.64, or two course reinforced concrete pavement, cost \$61,375.40; bids until Mch. 30; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo. Lately noted. (See Mch. Wanted—Road Construction.)

Mo., Kansas City—City Comms. will pave Riverside, Washington and Other Aves.; cost \$59,000; will let contracts.

Mo., Kansas City—Park Board let contract to Spitecaufsky Bro., at \$78,000 for constructing 25,000 yds. macadam and concrete pavement; W. H. Dunn, City Engr. (Lately noted.)

Mo., Lamar—State Highway Dept., Jefferson City, Mo., let contract to W. T. Simmons & C. M. Wells, Jasper, Mo., to construct 1.751 mi. State road from Lamar northward and southward; Barton County, State Aid Project 20.115; H. P. Mobberly, Div. Engr., Woodruff Bldg., Springfield, Mo. (Lately noted inviting bids.)

Mo., Marshall—State Highway Dept., Jefferson City, Mo., will construct 2.694-mi. State road from Malta Bend to Marshall; cost \$27,127.13; Saline County, State Aid Project 20.148; S. M. Rudder, Div. Engr., Sedalia, Mo.

Mo., Maryville—State Highway Dept., Jefferson City, Mo., let contract to A. L. Cook, Ottawa, Kans., at \$22,043.04 for constructing 3.872 mi. highway in Nodaway County; State Aid Project 20.120. (Lately noted inviting bids.)

Mo., St. Charles—State Highway Dept., Jefferson City, Mo., let contract to Farrell, Dubrouillet & Cushion, Linn, Mo., at \$10,164.75 for constructing 8.747 mi. State road County, State Aid Project 20.88; H. D. Griffith, Div. Engr., DeSoto, Mo. (Supersedes from St. Charles to West Alton; St. Charles recent item.)

Mo., Trenton—City plans constructing pavements on 7 streets; will let contracts. Address The Mayor.

Mo., Tusculumbia—State Highway Dept., Jefferson City, Mo., will construct 2.909 mi. State road from Eldon to Tusculumbia; State Aid Project 20.141, Miller County; cost \$10,519.50; S. M. Rudder, Div. Engr., Sedalia, Mo.

Mo., Van Buren—State Highway Dept., Jefferson City, Mo., let contract to Davis Construction Co., at \$34,912.46 for constructing 7.743 mi. State road from Van Buren to Teeper; Carter County, State Aid Project 20.122; M. S. Murray, Div. Engr., Sikeston, Mo. (Lately noted inviting bids.)

Mo., Waynesville—State Highway Dept., Jefferson City, Mo., let road contracts as follows: Everett A. Oliver, Richland, Mo., at \$9991.98 for 4.076 mi. State road from Waynesville to Laclede county line; State Aid Project 20.131; Louis E. Rollens, Discon, Mo., at \$12,140.55 for 3.494 mi. State road from Anderson to Maries county; State Aid Project 20.138; B. E. Stiles, Crocker,

Mo., at \$12,228.72 for 4.443 mi. State road from Waynesville to Crocker; State Aid Project 20.137; all Pulaski County; H. P. Mobberly, Div. Engr., Woodruff Bldg., Springfield, Mo. (Lately noted inviting bids.)

N. C., Asheville—North Carolina State Highway Comsn., Raleigh, N. C., will construct 2.58 mi. hard-surface road between Craggy and Leicester road; Buncombe County, Project 903; low bidder on rock asphalt type C. W. Lacy, Wilmington, N. C., at \$95,583.50; asphaltic concrete, Asheville Paving Co., Asheville, N. C., at \$97,908; structures, R. C. Stevens, Asheville, N. C., at \$6,109.25. (Lately noted inviting bids.)

N. C., Bryson City—Highway Comms., Bushnell, N. C., will construct 9-mi. highway between Noland, N. C., and Chambers Creek in Swain County; bids until Apr. 8. (See Mch. Wanted—Road Construction.)

N. C., Charlotte—Mecklenburg County Highway Comsn., will improve Providence road from 6-mi. post to Myers Park store; 3.5-mi.; also construct Derita road; cost \$200,000; bids until Mch. 27. Lately noted. See Mch. Wanted—Road Construction.)

N. C., Columbus—North Carolina State Highway Comsn., Raleigh, N. C., will construct 5.96-mi. hard-surface road or penetration macadam road in Polk County between Columbus and South Carolina line; Project 866; low bidder on penetration road, Dunn & Woodall, Atlanta, Ga., at \$144,144.60; hard-surface road, Southern Paving Construction Co., Chattanooga, Tenn., at \$195,469.80. (Lately noted inviting bids.)

N. C., Franklin—North Carolina State Highway Comsn., Raleigh, N. C., will construct 13.58-mi. macadam road between Franklin and Georgia line; Macon County, Project 962; low bidder on roadway; O'Brien Construction Co., Balsom, N. C., at \$111,135.75; structures Griffith Construction Co., Atlanta, Ga. (Lately noted inviting bids.)

N. C., Hamlet—City, H. P. Austin, Mayor, let contract to F. J. McQuire, Norfolk, Va., to construct 15,000 sq. yds. street paving. (Lately noted inviting bids.)

N. C., Henderson—City plans about 2-mi. street paving. Address The Mayor.

N. C., Kinston—City plans street paving; concrete and asphalt. Address The Mayor.

N. C., Lumberton—Town Comms. will issue \$80,000 bonds for additional street and sidewalk paving.

N. C., Lenoir—North Carolina State Highway Comsn., Raleigh, N. C., will construct 4.66-mi. soil road between Alexander county line and Lenoir; Caldwell County, Project 724; low bidder on roadway, Caldwell County Roadway Comsn., at 24,448; structures R. M. Thurmond & Co., Lynchburg, Va., at \$22,620.60. (Lately noted inviting bids.)

N. C., Lincolnton—North Carolina State Highway Comsn., Raleigh, N. C., will construct 7.10-mi. hard-surface road between Lincolnton and Catawba county line; Lincoln County, Project 647; low bidder on roadway, Bolton Construction Co., Marion, N. C., at \$227,113.60; concrete; structures, R. M. Thurmond & Co., Lynchburg, Va., at \$17,754.25. (Lately noted inviting bids.)

N. C., Sanford—Town, C. L. Gunter, Clk., let contract to Atlantic Bitulithic Co., Richmond, Va., for constructing 60,000 sq. yds. street paving; 3-in. sheet asphalt and 5-in. foundation; cost about \$15,800. (Lately noted inviting bids.)

N. C., Selma—City, W. H. Hare, Clk., will construct 5500 sq. yds. concrete, brick or asphalt pavement; bids until Mch. 31; Wm. M. Platt, Engr., Durham, N. C. Lately noted inviting bids Mch. 30. (See Mch. Wanted—Paving.)

N. C., Sanford—North Carolina State Highway

way Comsn., Raleigh, N. C., will construct 5.91-mi. soil road from Moore county line to Carthage-Sanford road; low bidder. C. D. Hester, Greensboro, N. C., at \$16,944; Lee County, Project 445. (Lately noted inviting bids.)

N. C., Southern Pines—Town, S. B. Richardson, Mayor, will construct 33,000 sq. yds. asphalt or other pavement; 5500 lin. ft. curb and gutter; 42,000 sq. yds. sidewalk; storm water drains, etc.; bids until Apr. 11; Gilbert C. White Co., Engr., Durham, N. C. Lately noted. (See Mch. Wanted—Paving.)

N. C., Sylva—North Carolina State Highway Comsn., Raleigh, N. C., will construct 11.85-mi. macadam road between Dillsboro and Swain county line; low bidder on roadway, R. H. Wright & Son, Asheville, N. C., at \$236,430.20; structures, W. T. Moore, Concrete Products Co., Andrews, N. C., at \$37,610; Jackson County, Project 951. (Lately noted inviting bids.)

N. C., Taylorsville—North Carolina State Highway Comsn., Raleigh, N. C., will construct 3.07-mi. soil road between Lenoir county line and Taylorsville; Alexander County, Project 601; low bidder on roadway, Gus Ginn, Inc., Gastonia, N. C., at \$18,539; structures, R. N. Thurmond, Lynchburg, Va., at \$12,034.14. (Lately noted inviting bids.)

N. C., Tryon—Town will construct 9000 sq. yds. paving; 9900 sq. yds. sidewalks; etc.; bids until Mch. 28; M. G. Blake, City Mgr.; Carolina Engineering Co., Engr., Wilmington, N. C. (See Mch. Wanted—Paving.)

N. C., Warrenton—North Carolina State Highway Comsn., Raleigh, N. C., will construct 4.49-mi. penetration macadam road between Warrenton and Norlina; Warren County, Project 492; low bidder on roadway, Porter & Peck, Greenville, N. C., at \$86,833; structures, A. C. House, Weldon, N. C., at \$4,472.58. (Lately noted inviting bids.)

N. C., Waynesville—City Comms., J. H. Howell, Mayor, will construct 32,755 sq. yds. paving; sheet asphalt, asphaltic concrete, Warrenite-bitulithic, Kentucky rock asphalt, asphalt macadam, brick, cement concrete; storm sewers; etc.; bids until Mch. 30; Carolina Engineering Co., Engr., Wilmington, N. C. (See Mch. Wanted—Paving.)

N. C., Wentworth—North Carolina State Highway Comsn., Raleigh, N. C., will construct 7.98-mi. hard-surface road between Wentworth and Teldsboro; Rockingham County, Project 588; low bidder on roadway and structures, Cheatwood & Driscoll, Richmond, Va., rock asphalt at \$235,935.50. and reinforced concrete at \$237,304.50. (Lately noted inviting bids.)

N. C., Wilkesboro—State Highway Comsn., Raleigh, N. C. plans hard-surfacing Laurel Springs road from point on Ninth St. to Fairplains; 2 mi. and grading, topsoiling or graveling road between Moravian Falls and Kilby's Gap; 4 mi.

N. C., Winston-Salem—Board of Alderman let contract for paving 5 mi. streets including Fifth, Trade Corona, Franklin, Sunset Drive and other streets.

Okla., Altus—City will pave 39 blocks; bids opened. Address The Mayor.

Okla., Bartlesville—City let contract to Hamilton Construction Co., Bartlesville, Okla., at \$53,676.50 for constructing 11,800 sq. yds. concrete pavements; E. D. Kirkpatrick, City Engr. (Lately noted.)

Okla., Cement—Caddo County, Cement Township will construct 6 mi. hard-surfaced roads with crushed rock; voted \$48,000 bonds; J. M. Pittman, Clk. Board. (Lately noted to vote.)

Okla., Covington—City plans paving 11 blocks; will let contract. Address The Mayor.



Okla., Cushing—City let contract to Elliott & Vance, Coffeyville, Kans., at \$15,000 for paving 7th and Harrison Sts.

Okla., Jay—Delaware County sold \$50,000 bonds for road construction. Address County Commrs.

Okla., Vinita—Craig County contemplates constructing hard-surfaced roads; may vote on bonds. Address County Commrs.

S. C., Allendale—State Highway Dept., Columbia, S. C., will construct 10.369-mi. road in Allendale County; sand-clay; cost \$38,200. (Lately noted.)

S. C., Anderson—State Highway Dept., Columbia, S. C., will construct 8.802-mi. section Anderson-Abbeville road; top-soil; cost \$40,000; 5.265-mi. Kays Bridge road; cost \$14,000; both Anderson County. (Lately noted.)

S. C., Columbia—City let contract to Powell Paving Co., at \$92,000 for constructing 30,000 sq. yds. paving; W. S. Tomlinson, Engr. (Lately noted inviting bids.)

S. C., Greenville—City will construct 25,000 sq. yds. street paving; 15,000 sq. yds. sidewalks; 20,000 lin. ft. granite curb; storm sewers; etc.; bids until Apr. 11; H. C. Harvley, Mayor; W. D. Neves, City Engr. (Lately noted. (See Mch. Wanted—Paving.)

S. C., McCormick—State Highway Dept., Columbia, S. C., will construct 18.613-mi. road in McCormick County from McCormick to Abbeville County line; top-soil surfacing; cost \$29,100. (Lately noted.)

S. C., Newberry—State Highway Dept., Columbia, S. C., will construct 2.515-mi. Newberry-Greenwood road in Newberry County; top-soil surfacing; cost \$17,500. (Lately noted.)

Tenn., Alton Park—City Comsn. plans issuing bonds for laying sidewalks.

Tenn., Athens—City sold \$90,000 bonds for paving Jackson and White Sts. Address The Mayor.

Tenn., Hohenwald—Dept. Highways, Nashville, Tenn., will surface section of State Highway No. 47 between Hohenwald and Summertown in Lewis and Lawrence Counties; 20.47 mi. chert surfacing; Federal Aid Project No. 27; bids until Mch. 31; D. Q. McComb, Ch. Engr., Nashville. (See Mch. Wanted—Road Construction.)

Tenn., Huntingdon—Dept. Highways, Nashville, Tenn., will surface section of State Highway No. 1 between Huntingdon and Camden in Carroll County; 12.27 mi. bituminous macadam surfacing 16-ft. wide; Federal Aid Project No. 21; bids until Mch. 31; D. Q. McComb, Ch. Engr., Nashville. (See Mch. Wanted—Road Construction.)

Tenn., Lenoir City—City, Mayor Wilson will pave 3 streets; asphalt.

Tenn., Nashville—City, S. H. McKay, Clk., sold \$170,000 bonds for street improvements and \$130,000 bonds for general street improvements. (Lately noted.)

Tex., Beaumont—Jefferson County Commrs. Court, J. B. Peek, Judge will construct 45-mi. concrete road and 90-mi. shell roads; build bridge; cost \$2,000,000; A. C. Love, County Engr. (Supersedes recent item.)

Tex., Belton—State Highway Dept., Austin, Tex. approved plans for constructing gravel surfaced road on Meridian highway in Bell County; cost \$177,000; J. W. Sutton, County Judge; S. J. Treadway, County Engr., Temple, Tex.

Tex., Center—Shelby County, Timpson Road Dist. plans constructing State Highway No. 35 from Timpson to Attoyac river; J. B. Burns, County Judge; F. R. Titus, Engr.

Tex., Corpus Christi—Nueces County let contract to J. P. Sherman, Rockport, Tex. to

construct 1 mi. shell-concrete surfacing on State Highway No. 12; H. R. Sutherland, County Judge; O. N. Powell, County Engr.

Tex., Corpus Christi—Nueces County will construct 22 mi. Highway No. 12 on Corpus Christi-Kingsville road from Kleburg county to Precinct No. 3 line; cost \$425,000; H. R. Sutherland, County Judge.

Tex., Gainesville—City will pave Lindsay St.; rock asphalt; cost \$40,000; construction by city.

Tex., Greenville—Hunt County plans constructing 12.16 mi. bituminous macadam road on State Highway No. 42 from Shepherd to Rains county line; cost \$178,000; O. P. McWhirter, County Judge; A. D. Duck, County Engr.

Tex., La Grange—Ch. Engr., U. S. Bureau Public Roads, Washington, D. C. approved plans for construction of 7.3 mi. 16ft. gravel road on State Highway No. 3-B; cost \$123,382.29; J. P. Ehlinger, County Judge; Capt. A. Schlafli, County Engr.

Tex., Linden—Ch. Engr., U. S. Bureau Public Roads, Washington, D. C. approved plans for construction of 13.1 mi. State Highway No. 1-A from point north of Atlanta to Bowie county line; cost \$65,000; H. D. Nelson, County Judge; Hess & Skinner, County Engrs., S. W. Life Bldg., Dallas, Tex.

Tex., McKinney—Collin County will construct 12.58 mi. Henry Exall highway in Collin County from point 4 mi. south of McKinney to Dallas county line; cost \$28,730; bituminous topping; surface 12.37 mi. State Highway No. 6 from point 4 mi. north of McKinney to Grayson county line; cost \$29,000; bids in near future; E. T. Murray, County Judge; W. C. Youngs, County Engr.

Tex., Sequim—Ch. Engr., U. S. Bureau Public Roads, Washington, D. C. approved plans for construction of 15.7 mi. 15-ft. gravel road on State Highway No. 3; cost \$173,627.44; J. B. Williams, County Judge; Hess & Skinner, County Engrs., S. W. Life Bldg., Dallas, Tex.

Tex., Sinton—San Patricio County plans to construct Aransas Pass, Gregory road through Road Dist. No. 3; J. C. Houts, County Judge; A. C. Pancoast, County Engr., Beeville, Tex.

Tex., Sonora—Sutton County plans constructing 10 mi. State Highway No. 4 from Sonora to Schleicher county line; gravel surfacing 18-ft. wide; cost \$98,000; L. W. Elliott, County Judge; Julian W. Alger, County Engr.

Tex., Tyler—City, H. J. Graeser in charge will construct ½-mi. paving; 8-in. rock base or 2-in. bituminous top; cost \$20,000; construction by city forces. (Lately noted. (See Mch. Wanted—Brick and Asphalt Paving Plant.)

Tex., Tyler—Smith County will construct 15 mi. State Highway No. 37 from Tyler to Cherokee county line; iron ore gravel surfacing; 6 mi. out of Tyler to be surfaced with 1½ in. Uvalde rock asphalt; cost \$200,000; D. R. Pendleton, County Judge; D. K. Caldwell, County Engr.

Tex., Uvalde—Uvalde County will construct 16 mi. Highway No. 3; gravel surfacing and bituminous top from Medina county line west through Precinct No. 2 to Frio river; cost \$136,000; D. H. Jones, County Judge; Louis W. Scheide Mantel, County Engr.

Va., Chatham—Town may issue \$12,000 bonds for improving Main St. Address The Mayor.

Va., Lynchburg—City will improve Washington, Pearl, Grace and 15th Sts.; widen Grace St.; cost about \$50,000. Address Mayor Harper.

W. Va., Charleston—City, Bonner H. Hill, Mgr., will grade, curb and pave streets; 40,000 sq. yds.; bids opened. (Lately noted.)

W. Va., Huntington—Cabell County Court let road contracts as follows: Hatfield Construction Co., at \$147,818 for paving Barboursville-Salt Rock road; vitrified block pavement on sand cushion; Geo. L. Pence, at \$6088 for concrete extension on Long Branch-Wayne road; John E. Dougher & Sons Co., at \$64,024.70 for reinforced concrete work on Main Seven Mile road; Jos. N. Doyle, County Road Engr. (Lately noted inviting bids.)

W. Va., Iaeger—City plans voting on bonds for street paving. Address The Mayor.

## Sewer Construction.

Fla., Fort Lauderdale—City will improve storm sewers and streets; plans voting on bonds. Address The Mayor.

Fla., Hastings—City plans installing sewer system; contemplates issuing bonds. Address the Mayor.

Ga., Atlanta—City, J. N. Landers, Pur. Agt., will extend sewers; expend about \$400,000 to extend full size trunk sewers; Clarke Donaldson, Sewer Engr. (Lately noted.)

Ga., Augusta—City, J. M. Smith, Mayor, plans constructing 8 to 10-in. terra cotta pipe sewers on Clark St., from West View Ave. to Wood St.

Ky., Paducah—City, F. W. Katterjohn, Mayor, plans constructing 10 mi. concrete storm sewers; bids about Apr. 1; Alvord & Burdick, Engrs., 8 S. Dearborn St., Chicago, Ill. (Previously noted.)

La., Hammond—City plans expending \$45,000 to extend and improve sewerage and water systems. Address The Mayor.

La., Ponchatoula—City will construct sewer and water systems; vote on bonds; Swanson-McGraw, Const. Engrs., 705 United Fruit Bldg., New Orleans, La. (Lately noted.)

Md., Baltimore—City, Board of Awards, Mayor Wm. F. Broening, Prest., will construct storm water drains in Fairmount Ave., Fayette and Clinton Sts. (Storm Water Contract No. 50); 1800 lin. ft. underdrain; 4380 cu. yds. concrete; 524,000 lbs. reinforcing steel; 4 manholes, etc.; bids until Mch. 29; A. E. Christhill, Highways Engr.; H. G. Perring, Ch. Engr. (See Mch. Wanted—Sewers.)

Miss., Vicksburg—City, F. A. Garvey, City Engr., let contract to Merrill Road Improvement Co., Chattanooga, Tenn., to construct 1000 lin. ft. 18 and 24-in. sewer line.

Mo., Aurora—City will construct sewer system; vote Apr. 18 on \$40,000 bonds. Address the Mayor.

Mo., Burlington Junction—City, Berry Hamm, Clk., will install sewer and water systems; vote Mch. 28 on bonds; E. T. Archer & Co., Engrs., 612 New England Bldg., Kansas City, Mo.

Mo., Charleston—City plans extending storm sewer system. Address The Mayor.

Mo., Joplin—City, Hiram Phillips, Clk., let contract to Edgar Koch, 2002 Pearl St., to construct sanitary sewer in Dist. No. 1; Sam Ashcraft, Engr., 2001 Joplin St.

Mo., Springfield—City will install sewage disposal plant and construct septic tank; vote Apr. 4 on \$50,000 bonds. Address The Mayor. (Lately noted.)

N. C., Asheville—City, R. J. Sherrill, Com. Mr. Public Works, plans installing addition-

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al sewer and repairing old ones; will issue \$100,000 bonds.

N. C., Asheville—City, Gallatin Roberts, Mayor, plans expending about \$50,000 to construct 8½ mi. sewer line in West Asheville; B. M. Lee, City Engr. (Lately noted.)

N. C., Fremont—City, Wm. M. Barnes, Clk. let contract to Tucker & Laxton, Charlotte, N. C., to construct sewerage and water systems; Gilbert C. White Co., Engr., Durham, N. C. (Lately noted bids until Mch. 2.)

N. C., Hickory—City plans laying additional sewer mains in South Hickory. Address The Mayor.

N. C., Lumberton—Town Commrs. will extend sewer and water systems; will issue \$120,000 bonds.

N. C., Southern Pines—City, S. B. Richardson, Mayor, will improve sewer and water systems, and streets; lay 9700 ft. storm water drains; 8700 lin. ft. sanitary sewer; bids Apr. 11; R. L. Chandler, City Clk.; Gilbert C. White, Engr., Durham, N. C. Lately noted voted bonds. (See Mch. Wanted—Sewers.)

N. C., Troy—Town, C. C. Croughton, Mayor, will improve sewer and water systems; construct sanitary sewer pipe lines and septic tanks; bids opened; Harwood Beebe, Engr.; Spartanburg, S. C. (See Mch. Wanted—Sewers.)

N. C., Winston-Salem—City, H. L. Shaner, Commr. Public Works, plans expending \$200,000 to install sewer and water systems in Southside.

Okla., Bristow—City will extend sewer system; install septic tank; voted Mch. 21 on \$50,000. Address The Mayor.

Okla., Henryetta—City will install sanitary sewers and disposal plant; vote Mch. 30 on \$85,000 bonds; install storm sewers; vote Mch. 30 on \$75,000 bonds. Address the Mayor.

Okla., Marlow—City, Geo. L. Orr, Clk., will improve sewer and water systems; contracts let soon; voted bonds. (Lately noted.)

Okla., Tulsa—City, T. D. Evans, Mayor, will improve sewer system; voted \$900,000 bonds. (Lately noted to vote.)

S. C., Greenville—City, H. C. Harvley, Mayor, will improve sewer system; install storm sewers, catch basins, manholes, etc.; bids until Apr. 11; W. D. Neeves, City Engr.; G. G. Wells, City Clk. (See Mch. Wanted—Sewers.)

Tenn., Memphis—City, Rowlett Paine, Mayor, improve and extend sewer system; will issue \$150,000 bonds.

Tenn., Memphis—City, Rowlett Paine, Mayor, will construct sanitary sewers in various districts; lay 10,947 lin. ft. 6 to 10-in. pipe, with necessary manholes south of Trigg Ave. and west of Y. & H. V. R. R.; 27,032 lin. ft. 6 to 15-in. pipe with necessary manholes in Meacham Town; 51,697 lin. ft. 6 to 18-in. pipe with necessary manholes in Marjorie Boyon Basin; bids until Mch. 28; C. C. Pashby, City Clk. (See Machinery Wanted—Sewers.)

Tex., Dallas—City, Chas. Davis, Mayor, let contract to Smith Bros. to construct storm sewer on Pacific Ave.; 30 to 84-in. concrete pipe; Geo. D. Fairtrace, City Engr. (Lately noted bids until Jan. 27.)

Tex., Kerrville—S. B. Cowell, Chmn. Building Board, American Legion Memorial Sanatorium, San Antonio, Tex., let contract to Walsh & Burney, 305 Calcasieu Bldg., San Antonio, Tex., to construct sewage and disposal plant at sanatorium; Phelps & Dewees, Archts., Gunter Bldg., San Antonio. (Lately noted bids until Mch. 6.)

Va., South Hill—Town, N. G. Smith, Clk.,

will issue \$100,000 to \$125,000 sewerage, water, light and power bonds.

W. Va., Huntington—City, Mat. Miser, Commr. Streets and Sewers, let contract to Amos Trainer to construct lateral sewers; A. B. Maupin, Engr. (Lately noted bids until Feb. 27.)

W. Va., Petersburg—Town, H. F. Baker, Town Recorder, will issue \$12,000 sewer, water and street bonds.

W. Va., Rivesville—City, J. W. Richards, Mayor, will install sewer system; B. Kress, Engr., Elkins, W. Va. (Lately noted.)

### Telephone Systems.

Md., Baltimore—Chesapeake & Potomac Telephone Co., G. H. Warren, Div. Mgr. plans an expenditure of \$15,000,000 in development of its facilities in different parts of state; starting with \$3,000,000 program or expansion and replacement for this year; approximately \$10,000,000 to be spent in next 3 or 4 yrs. as needed. (Previously noted to expend \$3,000,000 in Maryland during year 1922.)

Mo., St. Louis—Southwestern Telephone Co., E. D. Nims, Prest. plans expending \$1,500,000 on improvements. (Lately noted merging of Southwestern and Kinlock Telephone Co.'s.)

S. C., Greenville—Southern Bell Telephone Co., main office Atlanta, Ga., G. L. McCullough, Dist. Mgr. has under construction extension lines, carry 975 telephones to Cagle Park and Augusta Road; J. R. Shannon, Charlotte, N. C. in charge of construction.

Va., Roanoke—Chesapeake & Potomac Telephone Co., N. O. Wood, Dist. Mgr. reported as planning to expend \$1,610,000 for installation of equipment throughout State during year of 1922; install additional cables and exchange equipment in Roanoke, costing \$135,000.

### Textile Mills.

Ala., Andalusia—Chamber of Commerce, Allen Crenshaw, interested in establishing knitting mill.

Ga., Griffin—Hosiery, etc.—Spalding Knitting Mills, inceptd. with \$50,000 capital.

Ga., Griffin—Towels—Kincaid Mfg. Co., Allan Little, Prest., will erect plant addition for bleaching. (Lately noted contemplates increasing capital.)

Md., Baltimore—Cotton Sheeting, etc.—M. J. Swift & Co., Wayson and Thompson Sts., capital \$25,000, inceptd. by Nathaniel W. Harrison, Marcus A. Tregor and Geo. A. Finch.

N. C., Old Fort—Ginghams—D. W. Adams, P. H. Mashburn, J. S. Bradley and others interested in establishing mill with 8000 spindles and looms; site purchased.

### Water Works.

Ark., De Queens—City, Water-Works Dist. No. 1, D. A. Price, let contract to Campbell & Hengst, Dallas, Tex., at \$58,000, to construct water-works; Winters Engineering Co., Engr., Fort Smith, Ark. (Lately noted bids until Mch. 2.)

Ark., Fort Smith—City, Fagan Bourland, Mayor, plans improving water-works; improve distribution system; construct additional mains and cross feed lines; 3,000,000-gal. reservoir on Crow's Hill, etc.; E. Kiersted, Consult. Engr., Kansas City, Mo. (Lately noted.)

Ark., Springdale—City will improve water-works; lay 2 mi. pipe to Stultz Spring; install electric pumping station; purchased additional site. Address the Mayor.

Fla., Palatka—City, Chas. Burt, Clk. City

Council, purchased plant of Palatka Water-Works Co.; will merge with city's plant; contemplates extensions and improvements; City Engr., Randolph.

Fla., Passagrille—City will repair water mains; reconstruct electric lines; voted \$10,000 bonds. Address The Mayor.

Ga., Rossville—City will install water-works; vote Mch. 25 on \$30,000 bonds. Address The Mayor.

Ga., Thomasville—City plans erecting pump and power house; brick, stone, terra cotta, steel trusses; fenestra, steel sash, metal doors; C. Frank Galliner, Archt., 701 First National Bank Bldg., Montgomery, Ala. (Lately noted.)

La., Bossier—City plans installing water works; A. T. Archer & Co., Engrs., 612 New England Bldg., Kansas City, Mo.

La., Hammond—City plans expending \$45,000 to extend and improve water and sewerage systems. Address The Mayor. (Lately noted.)

La., Ponchatoula—City will construct water and sewer systems; vote on bonds; Swanson-McGraw, Const. Engrs., 705 United Fruit Bldg., New Orleans, La. (Lately noted.)

Miss., Vicksburg—City, J. J. Hayes, Mayor, will install 2 new boilers in water-works; bids until April 3. (See Machinery Wanted—Boilers.)

Mo., Burlington Junction—City, Berry Hamm, Clk., will install water and sewer system; vote Mch. 28 on bonds; E. T. Archer & Co., Engrs., 612 New England Bldg., Kansas City, Mo.

Mo., Concordia—City, J. S. Kilgengen, Clk. let contract to Pittsburgh-Des Moines Steel Co., Des Moines, Iowa, to improve water-works; Shockley Engineering Co., 800 Graphic Arts Bldg., Kansas City, Mo. (Lately noted.)

Mo., Trenton—City, A. O. Ginn, Supt. Water Works, will improve water works; Burns & McDonnell, Engrs., 402 Interstate Bldg., Kansas City, Mo.

N. C., Albemarle—Town, O. J. Sikes, Mayor, will improve water-works; construct 450x28 ft. concrete dam, etc.; bids until Apr. 4; Eli Kendrick, Clk.; Gilbert C. White Co., Engr., Durham, N. C. (See Mch. Wanted—Water-Works.)

N. C., Ashboro—City will improve water and light plant; raise dam to increase water storage. Address The Mayor.

N. C., Fremont—City, Wm. M. Barnes, Clk., let contract to Tucker & Laxton, Charlotte, N. C. to construct water and sewerage systems; Gilbert C. White Co., Engr., Durham, N. C. (Lately noted bids until Mch. 2.)

N. C., Lexington—Town, J. A. Leonard, Mayor, will improve water-works; construct brick and concrete pumping station, filter house and filter tube; brick and concrete auxiliary station; concrete storage reservoir; concrete coagulating basin; 3½-mi. cast iron pipe; 3½-mi. 2200-volt transmission line; install filter plant equipment; motor-driven centrifugal pumps and accessories; bids until Apr. 6; Gilbert C. White Co., Engr., Durham, N. C.; Paul R. Raper, City Clk. Lately noted. (See Mch. Wanted—Water-Works Equipment.)

N. C., Lumberton—Town Commrs. will extend water and sewer systems; will issue \$120,000 bonds.

N. C., Southern Pines—City, S. B. Richardson, Mayor, will improve water and sewer systems and streets; lay 7800 lin. ft. 6 and 8-in. cast iron water mains; bids until Apr. 11; R. L. Chandler, City Clk.; Gilbert C. White Co., Engr., Durham, N. C. Lately

noted voted bonds. (See Mch. Wanted—Water-Works.)

N. C., Troy—Town, C. C. Broughton, Mayor, will improve water and sewer systems; construct water mains; bids opened; Harwood Beebe, Engr., Spartanburg, S. C. Lately noted. (See Mch. Wanted—Water-Works.)

N. C., Winston-Salem—City, H. L. Shaner, Commr. Public Works, plans expending \$200,000 to install water and sewer systems in Southside. (Previously noted.)

Okla., Altus—City will improve water-works; increase filter and storage capacity. Address The Mayor.

Okla., Ardmore—City Comsn. plans extending water-works; construct dam at Hickory Creek; extend water mains and distributing system. (Lately noted voted bonds.)

Okla., Bristow—City will improve and extend water-works; voted Mch. 21 on \$50,000 bonds. Address The Mayor.

Okla., Henryetta—City will extend water mains; vote Mch. 30 on \$45,000 bonds. Address the Mayor.

Okla., Marlow—City, Geo. L. Orr, Clk., will improve water and sewer systems; contracts let soon; voted bonds. (Lately noted.)

Okla., Tallihina—City plans improving water-works; construct dam across canyon in Kiamichi Mountains. Address The Mayor.

Okla., Wilburton—City plans improving water-works; construct 700,000 gals. daily capacity filter plant; low head diversion dam; low lift pump station; remodel pump plant and distribution system; V. V. Long & Co., Engrs., 1300 Colcord Bldg., Oklahoma City.

Tenn., Germantown—City, J. M. Thompson, Clk., will expend about \$15,000 to construct water and light plant; install 25,000 to 30,000-gal. steel tank. Lately noted to issue bonds. (See Mch. Wanted—Well; Tank; Pump Head; Pipe.)

Tex., Childress—City, J. W. Mitchell, Mayor, contemplates constructing lake and reservoir; plans voting on \$300,000 bonds; R. G. Carraway, Engrs.

Tex., Highland Park, P. O. Dallas—City, H. R. Davis, Mayor, will drill several wells for water-works; invites bids. (Lately noted.)

Tex., Highland Park, P. O. Dallas—City, H. R. Davis, Mayor, will purchase and extend Highland Park water-works; voted \$150,000 bonds. (Lately noted to vote.)

Tex., Milsap—City plans improving water-works; increase water supply; McClendon & Purnell, Engrs., Mineral Wells, Tex.

Va., Chatham—City will improve water-works; erect filter plant and increase water supply; may issue \$20,000 bonds. Address The Mayor.

Va., Pennington—Pennington Water Co., Walter R. Pennington, plans expending \$40,000 to \$46,000 on water-works plant, install gravity flow line, daily capacity 300,000 gals., reservoir with capacity of 100,000 gals.; E. E. Thompson, Engr. Lately noted. (See Mch. Wanted—Water-Works.)

Va., South Hill—Town, N. G. Smith, Clk., will issue \$100,000 to \$125,000 water, light, power and sewerage bonds.

W. Va., Bridgeport—City will extend water lines; vote April 25 on \$25,000 bonds. Address The Mayor.

W. Va., Fairmont—City, J. Clyde Morris, Water Commr., will construct 4,000,000-gal. daily capacity filtration plant; vote March 28 on \$150,000 bond; Shrewbury B. Miller, Municipal Engr.; Fuller & McClintock, Engrs., New York. (Lately noted.)

W. Va., Fairmont—City, Wm. W. Conaway,

Mayor, will construct water filtration plant and intake well; vote Mch. 28 on \$150,000 bonds. (Lately noted.)

W. Va., Iaeger—City plans improving water-works. Address The Mayor.

W. Va., Petersburg—Town, H. F. Baker, Town Recorder, will issue \$12,000 water, sewer and streets bonds.

W. Va., Rivesville—City, J. W. Richards, Mayor, plans expending \$40,000 to install water-works; 400,000-gals. daily capacity; install centrifugal pumps, motors, etc.; construct 50,000-gal. wood reservoir; B. Kress, Engr., Elkins, W. Va. (Lately noted.)

W. Va., Wheeling—City, Water Comsn., plans improving water-works; install 20,000,000-gal. rapid sand filtration system, etc.; vote in Apr. on \$2,000,000 bonds; Morris Knowles, Engr., Pittsburgh, Pa. (Lately noted.)

### Woodworking Plants.

Ky., Hickman—Decoys—Adams Decoy Co., capital \$10,000, inceptd. with W. J. McMurray, Prest.; Joe W. Engle, V.P.; John Pyle, Secy-Treas.; J. Q. Adams, Supt.

Md., Baltimore—Furniture—Rich Brothers, 7 E. Pratt St. plans increasing plants capacity, install \$10,000 mch.

N. C., Greensboro—Furniture—Sterling Furniture Co., John B. Laucks, Prest., let contract to J. C. Norris to erect 32x100-ft., 2 story plant and basement, mill construction; installed sprinkler system; building for finishing and storage of furniture. (Lately noted.)

N. C., Wilson—Commercial Bodies—Hackney Bros., T. J. Hackney, Mgr., let contract to Wilkins & Wilkins to erect 1 story 80x300-ft. mill construction building for mfr. of commercial bodies.

Tenn., Lenoir City—Shuttles—T. M. Braezeale interested in establishment of shuttle plant.

Tenn., Memphis—Wood Products—Crowder Hickory Co., inceptd. by F. C. Grismore, E. M. Shulte and J. H. Parnell.

Tex., Paris—Furniture—Rodgers-Wade Furniture Co., W. C. Clark, Prest.-Treas., (lately noted to rebuild burned plant) let contract to Freese & Burford to erect 108x108-ft. front 4 stories and basement, 108x111-ft. back 2 story building, equipped with automatic sprinkler system; install chair mch.; mfr. furniture. (See Mch. Wanted—Chair Mch.)

Va., Galax—Flooring—Builders Exchange, Inc., W. H. Beckner, Mgr. build dry kilns, construction by owners; install general plan-

ing mill and flooring unit; daily capacity 10,000 ft.; mch. purchased.

W. Va., Huntington—Nightrack—Alevy Mfg. Co., 20th St., organized to mfr. nightrack, a novelty, invented by Thomas W. Harvey.

W. Va., Martinsburg—Barrels, etc.—Hampshire Barrell & Package Co., James A. Shawen, has under construction 130x42-ft. building, for mfr. of fruit packages.

### Fire Damage.

Ark., Hoxie—Methodist Church did not burn as recently reported.

Ark., Imboden—Methodist Church. Address The Pastor.

Fla., Jacksonville—Putnam Lumber Co.'s saw mill; loss \$10,000.

Fla., Live Oak—Scott Mfg. Co.'s planing mill; loss not estimated.

Ga., Augusta—J. M. Rozier's cotton ginnery, loss \$5000; J. B. Ravenport & Co.'s plant, 646 Broad St., loss \$2000.

Ga., Social Circle—Dailey Brothers ginnery.

Ky., Livingston—Jesse Pike's residence; C. H. Rice's residence; Ead Rowe's grocery store; Baptist Church; (Address The Pastor.)

Ky., Scottsville—Scottsville Milling Co.'s flour mill; loss \$50,000.

Md., Riderwood—John G. Naylor's blacksmith shop and garage; loss \$4500.

Miss., University—Graham Mill; loss \$13,000.

Mo., Lebanon—First Baptist Church. Address The Pastor.

Mo., Webb City—Wilhoit Oil Co.'s refinery, E. M. Wilhoit, Prest.; loss \$30,000.

Tenn., Bradford—Felix Mullins' residence about 3 mi. from Bradford.

Tex., Bradshaw—A. F. Benge Garage; Postoffice (address The Postmaster.)

Tex., Cisco—Cisco Candy Co.'s plant.

Tex., Lorena—S. C. William's ginnery; loss \$35,000.

Tex., Miles—Miles Natl. Bank Building, occupied in part by McKee & Lott's store; loss \$30,000.

Va., Crozet—Crozet Cider Co.'s plant; loss \$10,000.

Va., Roseville—McWhirt's Mill, John W. McWhirt, Owner.

W. Va., Moundsville—Eagle Hotel, owned by Peter Zukoff, loss \$15,000.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### Apartment Houses.

D. C., Washington—Frank A. Jones will erect apartment house at 3338 O St., N. W.; cost \$25,000; construction by owner.

Fla., Miami—Frank J. Whitney will erect apartment house at 129 N.W. 14th Ave.; cost \$10,000; 2 stories; cement blocks; 4 suites.

Fla., Orlando—Mrs. Rosa A. Lunsden will erect \$75,000 apartment house on Lake Eola; 3 stories and basement; hollow tile; stucco finish; terra-cotta cornice; Spanish architecture; 60 rooms; elevator.

Fla., Orlando—Ivanhoe Co., E. Geo. Wurst, Prest., inceptd. with capital stock of \$25,

000 and plans to erect apartment house on Lake Ivanhoe; 70 rooms.

Ga., Savannah—Artley Co. will erect 4 apartment houses on Abercorn and 34th Sts.; 2 apartments each; brick veneer; oak and yellow pine floors; cost \$50,000; materials purchased locally; construction by owner. (Lately noted.)

Mo., Kansas City—McCanless-Miller Realty Co. purchased site at 33rd St. and the Paseo; will erect 2 apartment buildings; 4 stories; each to contain 26 apartments; cut stone and brick; 25-ft. court between the buildings; cost about \$160,000.

Okla., Oklahoma City—G. A. Nichols will

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erect 4 apartment houses on W. 15th St.; brick veneer; cost \$12,000 each; also frame dwelling on W. 21st St.; cost \$5000; construction by owner.

S. C., Charleston—Edw. J. Murphy, 11 Broad St., will receive bids until Apr. 4 to erect apartment building at Beaufain St. and Rutledge Ave.; 3 stories; reinforced concrete; concrete roof; hardwood and concrete floors; steam heat; city lighting; hollow fireproof tile; ornamental terra cotta; interior tile; wire glass; mail chutes; ventilators; steel sash and trim; plans and specifications at offices of G. Lloyd Preacher & Co., Archts. and Engrs., Atlanta and Augusta, Ga. and Raleigh, N. C.; office of Mr. Murphy and Builders' Exchanges at Atlanta and Savannah, Ga. and Columbia, S. C.; sub-contractors may submit proposals through general contractor or direct to owner; following contractors estimating: H. J. Carr & Co., Gude & Co., Southern Ferro Concrete Co., A. J. Krebs Co., Griffin Const. Co., and Turner Const. Co., all Atlanta, Ga.; W. P. Worthy and Simons-Mayant Co., both Charleston; Palmer Spivey Const. Co., August, Ga.; and Weller Const. Co., Washington, D. C. (Lately noted.)

Tenn., Knoxville—General Building & Finance Co., Dr. Herbert Acuff, Prest., will erect Fort Sanders Manor apartment building; will consist of group of buildings surrounding a court, 35x90 ft.; 36 to 45 suites of 3, 4, 5, 6 and 9 rooms; buildings to be 3 stories except 1 of 2 stories; fireproof; pressed brick and terra cotta; cost \$225,000; Barber & McMurtry, Archts. (Lately noted.)

Tex., El Paso—T. H. Springer will erect apartment house in Campbell's addition; brick; cost \$12,000.

Tex., San Antonio—J. R. Walker will erect apartment house at San Pedro and Woodlawn Sts.; 3 stories; concrete basement; brick; fireproof; Atlee B. Ayres and Robt. M. Ayres, Archts.; Jay DePuy, low bidder at \$46,205; A. H. Shafer, plumbing, \$1699; Graham & Collins, electric work, \$1498. (Lately noted.)

Va., Richmond—C. F. Ruehrmund will erect 2 apartment houses on Patterson Ave. and 1 in 3000 block Kensington Ave.; brick.

Va., Roanoke—Mrs. Elizabeth Kinney will erect brick apartment house at 922 Commerce St., S. W.; cost \$15,000.

W. Va., Huntington—John E. Ross will erect 2-story brick apartment building on 4th St., east, between 4th and 5th Aves.; cost \$10,375.

W. Va., Huntington—G. D. Miller, Blair P. Wilson and Saml. Biern will improve Dusenberry Apartments on 13th St.; contract let; will also erect office building on 4th St.; 4 stories; brick and steel.

W. Va., Wheeling—H. S. Seigner purchased church building at Warwood and will convert into apartment house.

### Association and Fraternal.

Fla., West Palm Beach—Palm Beach Post of American Legion will erect building on Narcissus St.; 3 stories; brick; Jerome Wideman, interested.

Mo., Springfield—Board of Managers of Pythian Home meets Apr. 6 to consider plans erection of \$75,000 dormitory.

Mo., West Plains—Masonic Lodge plans to erect \$50,000 temple.

Okl., Ardmore—American Legion Post plans to erect \$20,000 building; 2 stories; brick; containing auditorium and stage,

motion picture booth, parlors, dining room and 1 apartment.

S. C., Greenville—Greenville Lodge Benevolent Protective Order of Elks will remodel building at North and Richardson Sts. for lodge purposes.

Tex., Dallas—Elks Lodge No. 71, R. C. Dobbin, Vice-Chrmn. of Bldg. Comm., will erect building at 1515-17 Commerce St.; 5 stories; foundation to provide for 12 stories; concrete and brick construction; 4 bowling alleys, swimming pool, shower baths, lockers, etc. in basement; lobby, stores, and lunch counter on first floor; offices, committee rooms, and retiring rooms on second floor; club rooms, etc. on third floor; Sam Vosper, Archt. (Previously noted.)

Tex., Dallas—Pythian Library Assn., Geo. W. Shaw, Ellis P. House and others, Comm., will erect \$100,000 building on Bryan St., between Hardwood and Olive Sts.; 3 stories; auditorium, club rooms and business offices.

W. Va., Huntington—American Legion Post, Sam Biern, Chrmn., will erect building.

### Bank and Office.

D. C., Washington—Park Savings Bank will remodel interior of building; Milburn, Helster & Co., Archts., Union Savings Bank Bldg.

Fla., West Palm Beach—D. F. Dunkle is Prest. of company to erect building at Datura and Olive Sts.; ground floor 90x92 ft.; 56x92 ft. to be 7 stories, remaining portion, 3 stories; stores on first floor; 90 suites or 180 offices above; Harvey & Clark, Archts.

Ga., Atlanta—Haas & Howell will erect office building at N. Forsyth and Poplar Sts.; 50x90 ft.; 6 stories; 4 stores, entrance and elevator lobby on first floor; fireproof; reinforced concrete faced with limestone and brick; Hentz, Reid & Adler, Archts.

Ky., Ashland—Ashland Natl. Bank will erect building; 100x100 ft.; 11 stories; composition roof; concrete, terrazzo and marble floors; safes; interior tile; metal doors; vaults; wire glass; mail chutes; vault lights; steel sash and trim; steam heat with ventilating system for bank room; 2 direct traction and 1 geared traction elevators. Address Schenck & Williams, Archts., Dayton, O. (Lately noted to open bids about Apr. 10.)

Mo., Kansas City—Huntzinger Adv. & Mfg. Co. will erect office building at 108 W. 10th St.; cost \$150,000; 6 stories; site, 32x142 ft.; fireproof; reinforced concrete.

N. C., Gastonia—Third Natl. Bank will erect building; cost \$210,000; 8 stories; fireproof; steel frame; steam heat; elevators; install bank fixtures, etc.; Milburn, Helster & Co., Archts., Washington, D. C. and Durham, N. C.; plans and specifications will be ready for contractors about May 15. (Previously noted.)

N. C., Hendersonville—First Bank & Trust Co. will open bids Apr. 1 to erect bank and office building; 45x130 ft.; 4 stories and basement; reinforced concrete, brick and tile; built-up roof; concrete and linoleum floors; hollow fireproof and interior tile; ornamental terra cotta; mail chutes; elevator; Warren Webster heating system. Address Erle G. Stillwell, Archt. (Lately noted.)

S. C., Saint George—Citizens Bank, Walker S. Utsey, Prest., will erect 2-story bank building. (See Mch. Wanted—Bank Fixtures; Tile.)

Tenn., Memphis—P. Brinkley Snowden will erect office building at S. Court Ave. and Maiden Ln.; 75x75 ft.; 21 stories; cost \$1,000,000; steel, reinforced concrete

and brick; white terra cotta exterior; basement and sub-basement; 4 high speed elevators; stairways; 4400 sq. ft. of space on each floor; Hanker & Cairns, Archts.; bids opened. (Previously noted.)

Tenn., Memphis—Elliott & Harman, Jacob A. Harman, Prest., plan to erect office building; 41x103 ft.; fireproof; reinforced concrete and brick; exterior front of enamelled terra cotta; 2 store rooms on ground floor; offices on second; install vault, shower baths, steel lockers, etc.; Chas. Deas, Archt.

Tenn., Memphis—Traffic Club of Memphis, Ben H. Wallace, Prest., is considering erecting building; 10 to 12 stories; will provide office space for railroads and accommodations for club.

Tex., Lorena—Lorena State Bank will rebuild structure occupied by bank, drug store and Odd Fellows hall; brick; wood floors; metal ceilings; metal doors; ventilators. (Lately noted damaged by fire at loss of \$15,000.)

Tex., San Antonio—W. J. Deniger, Bedell Bldg., prepared plans for building on Ave. C, adjoining Rex-Hocker Hardware Co.; 5 stories; 56x152 ft.; reinforced concrete, hollow tile and brick; concrete basement entire length of building; first floor for cafe, other floors, offices; cost \$150,000; construction by day labor under supervision of H. F. Bryan.

W. Va., Huntington—Duncan, Wiswell & Scott will erect office building at 12th St. and 4th Ave.; cost \$15,000; 3 stories; brick.

W. Va., Huntington—G. D. Miller, Blair P. Wilson and Saml. Biern purchased property at 4th Ave. and 13th St. and plan to erect office building on 4th Ave.; 4 stories; brick and steel. (See Contracts Awarded, Apartment Houses.)

### Churches.

Ala., Anniston—Church of Christ will erect building at Noble and 16th Sts. Address The Pastor.

Ala., Gadsden—Cumberland Presbyterian Church will erect building at Cove Creek. Address The Pastor.

Ark., Little Rock—Antioch Baptist Church, Rev. Ben M. Bogard, Pastor, will erect building; brick and stone; cost about \$10,000.

Ark., Lonoke—Baptist Church, Rev. R. A. Eddleman, Pastor, will rebuild structure lately burned at loss of \$15,000.

Fla., Tampa—Hyde Park Methodist Church plans to erect Sunday school building and alter present church; cost \$80,000 to \$100,000. Address The Pastor.

Ga., Atlanta—Capitol View Baptist Church, Rev. W. Lee Cutts, Pastor, purchased site at Stewart and Dill Aves. and will erect building; B. L. Smith, C. J. McLendon and others, Bldg. Comm. (Lately noted.)

Ga., Atlanta—Grace Methodist Church, Rev. A. G. Shankle, Pastor, plans to erect \$100,000 building; Walter McElreath, Chrmn. Bldg. Comm.

Ga., Jonesboro—Jonesboro Baptist Church will erect building; cost \$30,000; 42x84 ft.; brick and concrete; steam heat; Daniell & Beutell, Archts., Peters Bldg., Atlanta; construction by day labor. Address The Pastor. (Lately noted.)

Mo., Columbia—Baptist Young People's Union of First Baptist Church plans to erect chapel on W. Ash St. Address The Pastor.

Mo., Kansas City—Bishop Thomas F. Lillis of Kansas City Diocese, approved plans for \$100,000 Catholic church at 39th St. and Bellefontaine Ave.

Mo., St. Louis—Tower Grove Park Chis-

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

tian Church, T. J. Ayars, E. J. Morlock, G. W. Britt and J. H. Smithers, interested, will erect \$75,000 building at Kingshighway and Reber Place.

Mo., Springfield—Mt. Carmel Methodist Church will erect building at N. Boulevard and George St.; Elston, Axon & Russell, Archts.

N. C., Chapel Hill—Methodist Church will erect 10-room parsonage; frame; asbestos shingle roof; pine and hardwood floors; vapor heat; Fred J. Orr, Archt., Athens, Ga.; construction in July; also plans to erect next year auditorium to seat 800 to 1000 and Sunday school and social hall to accommodate 800; brick and stone; Jas. Gamble Rogers, Archt., 367 Lexington Ave., New York; total expenditure, \$180,000. Address Walter Patten, Chapel Hill. (Lately noted.)

Okla., Henryetta—Methodist Church will erect \$70,000 building to contain auditorium, gymnasium, lecture room, library, bath rooms, club rooms, etc. Address The Pastor.

S. C., Spartanburg—New Prospect Baptist Church will rebuild structure; cost about \$20,000; G. M. Hicks, Inman, Chrmn., Finance Committee.

Tenn., Harriman—Trenton Street Baptist Church will erect \$50,000 building; auditorium to seat 1200; 40 Sunday school rooms. Address The Pastor.

Tenn., Jackson—Highland Ave. Church of Christ will erect addition for 8 Sunday school rooms; stucco; composition shingle roof; pine floors; electric lighting; probably rolling partitions; F. E. Tatum, Archt., Address Rev. F. O. Howell, Pastor. (Lately noted.)

Tex., El Paso—First Baptist Church, G. P. Putnam, Chrmn. Bldg. Comm., will erect \$30,000 Sunday school unit; 1 story; ultimate plans provide for 4-story building. (Previously noted.)

Tex., Fort Worth—Central Methodist Church will erect building for Sunday school and gymnasium. Address The Pastor.

Tex., Port Arthur—P. G. Silber & Co. are preparing plans for additional Sunday school rooms for church building.

Tex., Sinton—Methodist Episcopal Church, South, Rev. Shan M. Hull, Pastor, will erect building; cost \$25,000; brick; basement to accommodate 10 or 12 Sunday school classes; balcony; auditorium to seat 400; stained glass windows; install pipe organ; bids opened about August. (Previously noted.)

Va., Pocahontas—Christian Church will erect building at Center and Church Sts.; John W. Owens, Geo. W. Gillespie and others, interested.

Va., Bluefield—Sacred Heart Congregation, Rev. W. M. Burke, Pastor, will erect building; 48x100 ft.; rough and cut stone; probably slate roof; concrete, composition, wood and tile floors; interior tile; metal doors; special system of steam heat; electric lighting; Martin J. Garry and Robert A. Sheffey, Archts. (Lately noted.)

W. Va., Huntington—Sixteenth Street Baptist Church will erect building on 9th Ave., between 16th and 17th Sts.; cost \$40,000; 2 stories; brick and stone. Address The Pastor.

### City and County.

Mo., Cape Girardeau—Alms House—Cape Girardeau County Court, Blucher Sperling, Clk., opened bids to erect building at county farm; 2 stories; brick; figures exceeded estimate and plans are being revised; will probably let contract about Apr. 10; A. F. Lindsay, Archt., Sikeston. (Lately noted.)

N. C., Asheville—City Hall—City, J. H. Schoepf, Purchasing Agent, will receive bids until Mch. 24 for additions and changes to city hall building; cost \$10,000; plans and specifications from Smith & Carrier, Archts. (Lately noted.)

### Courthouses.

Fla., Orlando—Orange County Commrs. will soon call election on \$400,000 bonds to erect courthouse.

Ga., Donalsonville—Seminole County Board of Commrs., J. L. Dickenson, Chrmn., will receive bids until Mch. 27, to erect courthouse and jail, install heating plant and furnish and erect jail cells, etc.; cost \$60,000 to \$75,000; brick and concrete; concrete and other roofing; concrete and maple floors; hollow fireproof and interior tile; metal ceilings; ornamental terra cotta; safes; metal doors; vaults; rolling partitions; wire glass; vault lights; ventilators; steel sash and trim; electric lighting; plans and specifications at office of H. G. Rawls, Clk. and obtainable from office of Wm. J. Chase, Archt., 140 Peachtree St., Atlanta. (Lately noted.)

Mo., Greenfield—Dade County will erect \$100,000 courthouse; Bondsoek & Pearce, Archts., St. Louis; bonds voted. (Previously noted.)

N. C., Carthage—Board of Commrs. of Moore County, H. P. McPherson, Chrmn., will receive bids until Apr. 5 at office of Register of Deeds to erect courthouse; separate bids for general contract, steam heating, plumbing and fixtures, electric wiring and fixtures, steel and wood furniture, document files and equipment; cost \$150,000; 3 stories; 65x121 ft.; fireproof; reinforced concrete, brick and stone; composition roof; tile, hardwood and concrete floors; hollow fireproof and interior tile; ornamental terra cotta; plans and specifications at offices of E. C. Matheson, Register of Deeds, Carthage; Chamber of Commerce, Charlotte; Builders' Exchanges, Atlanta, Ga. and Columbia, S. C. and C. Gadsden Sayre, Archt., Anderson, S. C. (Lately noted.)

Tex., Sterling City—Sterling County, B. F. Brown, Judge, will repair courthouse; rock construction.

### Dwellings.

Ark., Little Rock—Bracy Realty Co. will erect brick veneer residence at 201 Gaines St.; cost \$7000; 2 stories; 2-story brick veneer residence at 2411 Arch St.; cost \$6000; also 1-story bungalow at 1124 W. 24th St.; cost \$4000.

D. C., Washington—Boss & Phelps will erect 8 dwellings at 3914-20 Jenifer St. and 3915-21 Ingomar St., N. W.; cost \$65,000; 2 stories.

D. C., Washington—C. H. Small will erect 2-story brick dwelling at 5208 38th St., N. W.; cost \$15,000; construction by owner.

D. C., Washington—C. L. Tanhersley will erect 8 dwellings at 218-32 S St., N. E.; cost \$39,300; 2 stories; brick.

D. C., Washington—Morris Cafritz, 717 14th St., N. W., plans to erect 100 dwellings, lately noted; cost about \$6000 each; 18 and 19x30 ft.; brick; slag roofs; oak and pine floors; hot water heat, about \$300. (See Mch. Wanted—Building Material.)

Fla., Miami—Arthur Pryor will erect residence at Hialeah; H. A. Hopkins will supervise construction.

Fla., Miami—W. S. Wills, Tampa purchased 6 lots in Shenandoah subdivision on Tamiami Trail and plans to erect dwellings; native stone foundations; stucco finish; porches, fireplaces, etc.; construction by owner.

Fla., Tallahassee—Miss Sallie Blake will erect residence on W. Park Ave.

Fla., Tallahassee—E. O. Boone will erect residence on W. Park Ave.

Fla., Tallahassee—C. L. Mizell will erect residence on W. Park Ave.

Fla., West Palm Beach—Dwight A. Allen will erect residence on Hibiscus St.

Ky., Ashland—Rogers Bros. purchased tract between Lexington and Hilton Aves. and 25th and 27th Sts.; plans to grade immediately and erect 27 dwellings.

Ky., Ashland—D. A. Leffingwell, Jr., will erect \$20,000 residence; lately noted; 40x40 ft.; face brick; composite construction; tile; roof; oak and tile floors; warm air heat; interior tile; Tyson & Foster, Archts. (See Mch. Wanted—Building Material; Tile; Electrical Fixtures; Heating Plant; Plumbing.)

Ky., Sturgis—Bell Coal & Coke Co., C. H. Wilson, Supt., will erect number of dwellings and storehouse.

La., St. Petersburg—Schooley & Murphy will erect 2 dwellings, 1 at 30th St. and 2nd Ave., north, other at 16th Ave., north; total cost \$13,000.

La., Shreveport—Andrew Querbs is erecting 6 six-room brick dwellings; metal lath; oak floors; all materials purchased. (Lately noted.)

Md., Baltimore—Geo. W. Schoenhals, 101 S. Linwood Ave., will erect 3 two-story brick dwellings at 1532-36 Poplar Grove St.; cost \$12,000.

Md., Baltimore—Earle W. Blackburn, Harford Rd., Hamilton, will erect 5 dwellings on Forrest Ave., nr. Sipple Ave. and 6 at corner of Forrest and Sipple Aves.; total cost \$33,000.

Md., Baltimore—Maryland Title Guarantee Co., Equitable Bldg., acquired site on Park Ave., at Druid Hill Park and plans to erect 6 2-family and 1 3-family dwellings; cost \$125,000; Edw. L. Palmer, Jr., Archt., 513 N. Charles St.

Md., Baltimore—Sterling Realty Co., 11 E. Fayette St., will erect 4 frame bungalows at 3821-27 Kate Ave.; cost \$14,000.

Md., Baltimore—Mueller Const. Co., Gunther Bldg., will erect 9 dwellings at 200-16 University Parkway; 2½ stories; 24x36 ft.; slate roofs; hot water heat; cost \$60,000; Flournoy & Flournoy, Archts., 306 St. Paul St.; construction by owner. (Lately noted.)

Md., Baltimore—Sterling Realty Co., 11 E. Fayette St., will erect 5 dwellings at 5005, 9, 13, 17, 19 Belleville Ave.; cost \$16,500; 1 story; frame; 26x31 ft.; Geo. Wessel, Archt., 2752 Winchester St.; construction by owner. (Lately noted.)

Miss., Hollyknowe—W. B. Swain will receive bids on Apr. 1 to remodel and erect residence; plans and specifications from T. J. Harvey & Co., Archts., Greenville.

Mo., Kansas City—R. W. Cunningham, of Cunningham Engineering & Constr. Co., purchased site at 4914 Mercier St., Westwood Park, and plans to erect solid stone bungalow; tile roof.

Mo., Kansas City—Leland S. Davis, L. S. Davis & Co. purchased site at 55th St. and Bellevue Ave.; will erect brick residence.

Mo., St. Louis—Mrs. Daniel R. Russell will erect \$20,000 residence at 24-Northmoor Dr. in Northmoor Park, University City; English type; hollow tile and stucco; flagstone walks and drives; Hugo K. Graf, Archt., Chemical Bldg.

N. C., Durham—Gene Newsom will erect residence; Milburn, Helster & Co., Archts., Durham and Washington, D. C.

Okla., Oklahoma City—W. R. Samuel will

erect brick veneer dwelling and garage at 224 W. 18th St.; cost \$11,000.

Tenn., Memphis—Mrs. Leona Ash will erect residence at 325 Vance Ave., to replace burned structure; cost \$20,000; 37x75 ft.; Chas. Deas, Archt.

Tenn., Memphis—J. R. Ellis is erecting 3 bungalows at Cooper and Nelson Aves.

Tenn., Memphis—Mrs. Edna Worthington Passino will develop property on Lamar Ave., nr. Parkway; sub-divide in to 38 lots; will erect bungalow for own occupancy; cost \$16,000; 9 rooms; brick veneer and stone; also plans to erect number of other bungalows; R. B. Spencer, Archt.

Tenn., Memphis—Eugene Warren purchased 8 lots on Court Ave. and Cox St. and Jefferson Ave. and Cox St.; plans to erect bungalows.

Tex., San Antonio—Cole Y. Bailey will erect residence near Alamo Country Club; cobble stone and stucco; C. B. Schoeppl & Co., Archts.; Jas. R. Ahr, low bidder at \$8949; Jud & Ormand, low bidders for plumbing at \$848; Jewett Cornice & Roof Co., heating, \$325; Kirkwood, electric work, \$45.

Tex., San Antonio—A. G. Dugger will erect residence on Woodlawn Ave.; reinforced foundation; stucco and hollow tile; cost \$10,000; Smith & Kelly, Archts.

Tex., San Antonio—Dr. Gustav A. Paenstcher will erect residence; Atlee B. Ayres and Robt. M. Ayres, Archts.

Tex., San Antonio—Lewis Maverick will erect residence on Babcock Rd., nr. Fredericksburg Rd.; Ralph H. Cameron, Archt.; construction by day labor under supervision of W. E. Gentry.

Tex., San Antonio—Herbert S. Green, Alamo Natl. Bank Bldg., prepared plans for 2-story frame residence and garage on Summit Heights; bids opened Mch. 18; separate bids for warm air heating, plumbing and wiring.

Tex., San Antonio—F. L. Hillyer will erect 2 dwellings in Summit Place addition; Atlee B. Ayres and Robt. M. Ayres, Archts.

Tex., San Antonio—Perry J. Lewis will erect residence on W. French Pl.; Atlee B. Ayres and Robert M. Ayres, Archts.

Tex., San Antonio—Henry T. Phelps prepared plans for frame residence; bids being received.

Va., Graham—Mrs. Hugh Tabor, Gary, W. Va., is reported to erect residence at West Graham.

Va., Richmond—Le Roy E. Brown, Jr., will erect residence in Hampton Gardens; cost \$25,000 to \$30,000; hollow tile or brick; slate or tile roof; oak floors; hot water heat; electric lighting.

Va., Richmond—S. H. W. Easterly will erect 6 dwellings at 510-20 Sheppard St.; cost \$36,000; frame and stucco.

Va., Richmond—F. A. Walper will erect 2 dwellings at 3012 and 14 Griffin St. and 1 dwelling at 2405 Chamberlayne Ave.; cost \$6000 each; frame and stucco.

Va., Richmond—Elizabeth Lee will erect 2 dwellings at 3120-22 Stuart St.; cost \$15,000.

Va., Richmond—Frank K. Lord will erect 2 frame and stucco dwellings at 3207-9 First Ave.; cost \$13,000.

Va., Richmond—Harry Rohn will erect \$10,000 dwelling at 3501 Chamberlayne Ave.

Va., Richmond—Forrest Rose is reported to erect residence in Hampton Gardens; cost \$25,000 to \$30,000.

Va., Richmond—Jos. F. White is erecting \$40,000 residence at Hampton Gardens.

Va., Richmond—Dr. J. C. Wicker is report-

ed to erect residence in Hampton Gardens; cost \$25,000 to \$30,000.

### Government and State.

La., Alexandria—Post Office—Treasury Dept., Jas. A. Wetmore, Acting Suprv. Archt., Washington, D. C., will receive bids until April 17 for new roof and plastering for postoffice; drawings and specifications from custodian at Alexandria or from office of Suprv. Archt.

### Hospitals, Sanitariums, Etc.

Ala., Selma—Alabama Baptist Hospital acquired site on Voeglin St. and will erect hospital for negroes.

N. C., Goldsboro—State Hospital, Dr. W. W. Faison, Supt., will receive bids until Mch. 28 for general power plant, piping and accessories, steam heating equipment, water filtration and refrigerating equipment to be installed at State Hospital; plans and specifications by H. A. Underwood, Engr. Joint Bldg. Comm., Commercial Bank Bldg., Raleigh and Wiley & Wilson, Consulting Engrs., Lynchburg, Va.; on file at offices of Mr. Underwood, Wiley & Wilson and Dr. Faison.

Okl., Muskogee—Soldiers Relief Comsn., H. B. Fell, Chrmn., 544 State Capitol Bldg., will receive bids until Mch. 25 to erect general hospital; cost \$425,000; 208x115-ft.; 5 stories; 500 beds; fireproof; reinforced concrete, brick and stone; 5-ply built-up roof; concrete and terrazzo floors; hollow fireproof and interior tile; metal doors; vaults; wire glass; ventilators; steel sash and trim; 2-pipe vacuum heating system; 2 passenger elevators; Chas. P. Nieder and Morris Jayne, Archts., and F. M. Olston, Asso. Archt., all Oklahoma City. Address owner. (Lately noted.)

S. C., Columbia—South Carolina Baptist Hospital, Dr. W. M. Whiteside, Supt.-Treas., plans to erect addition; cost about \$50,000; 50x50 ft.; 4 stories; brick; fireproof; details in hands of Comm. (Lately noted.)

Tex., Livingston—Dr. Harry Bergman will erect sanitarium on Washington Ave.; 25 rooms; foundation completed.

### Hotels.

Fla., St. Petersburg—Jos. Sharp will erect 2 buildings on either side of court; 37 hotel rooms with lavatory attached; cost \$10,000.

Mo., Kansas City—Wm. Jackson is prest. of company to erect \$200,000 hotel for negroes at 11th St. and Euclid Ave.; hollow tile and stucco; 3 stories; 120 rooms; Albert B. Fuller, Archt.

N. C., Durham—I. E. Bugg will enlarge Hotel Mabourne, doubling capacity; Milburn, Heister & Co., Archts., Union Savings Bank Bldg., Washington, D. C. and Durham.

Tex., Sherman—W. R. Brents is considering erecting 4 additional stories to Commercial Natl. Bank building for hotel.

Tex., Willis Point—Ellis Campbell will erect hotel lately noted; cost \$20,000 to \$25,000; 50x65 ft.; 3 stories; brick and tile; metal ceilings; concrete floors; R. E. Scott, Archts.; will consider proposals for heating and plumbing plant for next 60 days. Address Owner. (See Machinery Wanted—Building Material; Metal Ceilings; Tile; Plaster Board; Terra Cotta (Ornamental); Ventilators.)

### Miscellaneous.

Fla., Orlando—Club House—Sorosia Club Mrs. A. B. Whitman, Prest., will erect building on Liberty St., adjoining Cathedral School property; 92x50-ft.; cream stucco with Italian blue trimmings; gr. tile roof; cost \$22,000; Murry S. King, Archt.

Miss., Lake View—Club House—Horn Lake

Outing Club, Chas. E. Wessels, Prest., will erect new club house and improve present structure; cost \$15,000; E. L. Harrison, Archt.

Tenn., Memphis—Fair Building—Park Commrs., J. T. Willingham, Chrmn., L. M. Desausure, Secy., room 4, Courthouse, will erect woman's building in Tri-State Fair Grounds; bids opened Mch. 18; plans and specifications at office of G. O. Pfeil, Archt., Union Planters Bank Bldg.

### Schools.

Ga., Atlanta—City Board of Education, W. A. Sutton, Supt., will erect boys' high school at Boulevard, 10th, 8th and Jackson Sts.; cost \$750,000 to \$1,000,000; Italian architecture; several units including academic building, 2 stories; technological building, 3 stories; commercial building, 3 stories; corridor to connect structures; esplanade with semi-open air gymnasium in front of academic building; circular tract, combination football and baseball field; tennis court and hand ball court; A. Ten Eyck Brown, Archt., Forsyth Bldg. (Lately noted.)

La., New Orleans—Tulane University, Dr. A. B. Dinwiddie, Prest., will erect science building; cost about \$50,000.

Miss., Starkville—City is considering erecting consolidated school building. Address The Mayor.

Mo., Columbia—Board of Curators of University of Missouri, Edw. E. Brown, Bus. Mgr., will receive bids on Apr. 10 for erection of \$200,000 agricultural building, \$150,000 women's gymnasium, and \$125,000 chemistry building and for heating and ventilation, plumbing and gas fitting and wiring; all stone construction; plans and specifications available to contractors on or before Mch. 25 and will be on file for examination at business office of University; office of Jas. P. Jamieson and Geo. Spearl, Archts., 1116-26 Arcade Bldg., St. Louis and office of Western Contractor, 521 Locust St., Kansas City. (Lately noted.)

Mo., Higbee—Board of Education plans to erect addition to high school; will submit question to vote.

Mo., Hornersville—Hornersville School Dist. Trustees will erect high school building; bonds voted.

Mo., Kirksville—Northeast Missouri State Teachers College, Dr. John J. Kirk, Prest., will erect science hall; cost \$87,000; 2 stories; 90x72 ft.; brick; stone trim; composition roof; R. H. Sanneman, Archt., 519 Lee Bldg., Kansas City; also erect \$200,000 gymnasium and auditorium; bids opened Apr. 11. (Previously noted in part.)

Mo., Sarcoxie—City is considering erecting high school building; election Mch. 21 on \$20,000 bonds. Address The Mayor.

N. C., Boules Creek—Boules Creek Academy, Prof. J. A. Campbell, Supt., will erect Carrie Rich Memorial Library; 75x48 ft.; brick; limestone, metal and lumber; tar and gravel roof; concrete, terrazzo and hardwood floors; metal doors; wire glass; steel sash and trim; steam heat; Delco lighting; bids opened about Apr. 10. Address C. Gilbert Humphreys, Archt., Winston-Salem. (Lately noted.)

N. C., Cullowhee—Joint Building Comm., H. A. Underwood, Engr., 912 Commercial Bank Bldg., Raleigh, will erect dormitory at Cullowhee Normal and Industrial School; separate bids received until Mch. 23 for construction, plumbing and heating; G. Murray Nelson and Thos. W. Cooper, Archts., Raleigh; plans and specifications at office of Mr. Underwood, Raleigh, R. L. Madison, Supt., Cullowhee.

N. C., Fayetteville—School Board will install heating for 6 schools; Milburn, Heister



& Co., Archts., Union Savings Bank Bldg., Washington, D. C. and Durham, N. C.

N. C., Rich Square—Board of School Trustees, A. J. Connor, Chrmn., will receive bids until Mch. 31 to erect grammar and high school building; cost about \$75,000; 150x50 ft. with auditorium, 45x80 ft.; non-fireproof; stone and selected common brick; Barrett specification 20-yr. roof; probably pine floors on concrete; hollow fireproof tile; ornamental terra cotta; metal doors; vaults; ventilators; steel sash and trim; plans and specifications at offices of Chas. C. Wilson, Archt., 105 Davis Bldg., Wilson, N. C., 404 First Natl. Bank Bldg., Gastonia, N. C., 804-9 Palmetto Bldg., Columbia, S. C., 503 Franklin Trust Bldg., Philadelphia, Pa.; also at offices of Builders Exchanges, Columbia, S. C. and Atlanta, Ga.; Chamber of Commerce, Charlotte, N. C.; obtainable from Columbia office of architect. Address Mr. Connor. (Lately noted.)

N. C., Ronda—County Board of Education, C. C. Wright, Supt., Hunting Creek, plans to erect school building.

S. C., Easley—Board of School Trustees, J. R. Martin, Chrmn., will erect \$12,000 grade school; about 50x90 ft.; frame; metal roof; pine floors; steam or hot air heat; also \$30,000 high school; 50x90 ft.; brick; metal roof; pine floors; steam heat; architect not selected. (Lately noted.)

Tenn., Dresden—City voted \$25,000 bonds to erect high school building. Address The Mayor.

Tenn., Morristown—Morristown Normal & Industrial College, colored; will erect 2 dormitories and central dining hall to seat 500; has appropriation of \$150,000.

Tenn., Rossview—Board of School Dist. Trustees, Mr. Crow, Secy., will erect \$80,000 grammar and high school building; bonds sold.

Tex., Del Rio—Board of Education will erect school building; L. Harrington & Co., Archts., San Antonio.

Tex., Everman—Everman Independent School Dist. will erect building. Address County Supt. of Schools, Fort Worth.

Tex., Fabens—County Board of Education, Myra Winkler, Supt., El Paso, plans to consolidate Fabens and Island school districts and call election on \$40,000 bonds to improve Fabens school.

Tex., Fredericksburg—Fredericksburg Independent School Dist. will erect building; cost \$60,000; semi-fireproof; Johns-Manville asbestos roof; concrete, wood and terrazzo floors; hollow fireproof tile; metal ceilings; H. F. Kuchne, Archt., Littlefield Bldg., Austin; bids opened. (Lately noted.)

Tex., Garwood—Garwood Independent School Dist. Trustees will erect \$20,000 building; 2 stories; brick and concrete; provision for concrete basement; P. G. Silber & Co., Archts., San Antonio. (Lately noted.)

Tex., Greenville—City voted \$150,000 bonds to erect high school and ward school building; Jos. F. Nichols, Mayor.

Tex., Jacksonville—Jacksonville Independent School Dist. will erect building; \$45,000 bonds available. Address G. W. Gibson.

Tex., Kerrville—Screiner Institute, Rev. W. P. Dickey, Chrmn. Bldg. Comm., plans to erect 10 school buildings and dormitories, 6 professors' homes, administration building, grand stand, etc.; will erect junior college as first unit; cost \$100,000; will probably award contract last of April. Address Clyde & Rolfe, Archts., Sherman. (Lately noted.)

Tex., San Antonio—Board of Education will erect school at Alamo Heights; cost \$60,000; 70x115 ft.; 3 stories; concrete and brick; tar and gravel roof; wood and cement floors; steam heat; M. L. Waller & Co., Archts., 511 Brady Bldg.; will soon let contract. (Lately noted.)

Tex., Taylor—City Comms. will issue \$150,000 bonds to erect high school building; bids until Mch. 28; F. Glesecke, Archt., Austin.

Tex., Waco—Baylor University, Dr. S. P. Brooks, Pres., will erect building; cost \$250,000; reinforced concrete; slate roof; cement floors; steam heat; Birch D. Eastwood, Archt.

Va., Clarksville—Clarksville Dist. School Board, H. M. Harris and others, will receive bids until Apr. 15 to erect addition to school building; cost \$40,000; 12 rooms and auditorium; brick and wood construction; slate roof; wood floors; warm air heat; electric lighting; plans and specifications at office of Carneal & Johnston, Archts., Richmond; turnkey job; will vote on \$150,000 bonds. (Lately noted.)

### Stores.

D. C., Washington—H. A. Linger will erect store building at 925, 25½ G St., N. W.; 3 stories and basement; 24x103 ft.; brick; reinforced concrete and steel; steel sash; slag and tile roof; plate glass; O. Harvey Miller, Archt., McLauchlin Bldg., will receive bids until Mch. 30; following contractors estimating: Wm. R. Coon, Wm. P. Lipscomb & Co., E. D. Nichols, A. Hofferberth and W. L. Dawson, all Washington; Price Const. Co., Md. Trust Bldg., Baltimore, Md. (Lately noted.)

D. C., Washington—Allan E. Walker Investment Co., Southern Bldg., purchased building at Mass. and New Jersey Aves. and will remodel for stores and apartments; Robt. R. Beresford, Archt., Southern Bldg.; construction by owner.

Fla., West Palm Beach—Wenwick, Walkley, Montreal, Can., Consolidated Realty Co., agent, West Palm Beach, purchased site at Poinsettia and Fern Sts.; will erect business building.

Ky., Louisville—Security Realty Co., 5th St. and Court Pl., will erect store building at 44-46 S. 5th St.; cost \$25,000; 50x60 ft.; 2 stories on first floor and 2 halls on second; brick and frame; composition roof; hardwood and concrete floors; metal ceilings; ventilators; steel sash and trim; steam heat, \$1200; lighting, \$400; contract awarded in about 2 weeks. Address Arthur G. Tafel, Archt., 306-7 Coleman Bldg. (Lately noted.)

N. C., Greensboro—Huntley-Stockton-Hill Co. will erect store and office building; cost \$88,000; 4 floors, 35x300 ft.; 2 floors, 35x160 ft.; reinforced concrete; Barrett 20-yr. roof (paper and stone); concrete floors; hollow fireproof and interior tile; ornamental terra cotta; metal doors; 2 vaults; wire glass; vault lights; steel sash and trim; heating, \$15,000; lighting, \$5000; elevators, \$7000; plans by W. W. Hammonds. Address owner. (Lately noted.)

N. C., Shelby—J. G. Dudley will erect building lately noted; cost about \$20,000; 3 stories; store room, 27x90 ft.; 8-room residence; brick; tin roof; interior tile; hardwood and concrete floors; steam and hot water heat; electric lights; bids opened about April 1. (See Mch. Wanted—Brick; Plate Glass; I Beams; Elevator.)

Okla., Oklahoma City—John A. Semke will erect department store at 116 W. 18th St.; cost \$11,000.

S. C., St. George—R. D. Canaday will erect store building; also bungalow.

Tenn., Memphis—Leo Goodman and I. D. Block will erect brick store building; nr. Bellevue Blvd. and McLemore Ave.; 68x65 ft.; cost \$12,000.

Tenn., Memphis—P. W. Lytle of Lytle Electric Co. will erect brick business building at 288 Union Ave.; cost \$25,000; 2 store rooms on ground floor; 4 apartments on second floor.

Tenn., Memphis—Chas. J. Rauch will erect

drug store building at Bellevue Blvd. and McLemore Ave.

Tex., Giddings—P. H. Luecke will erect business building lately noted; 2 stories; 80 ft. long; brick; plate glass front; concrete and hardwood floors; metal ceilings; plaster board; rolling partitions; prism glass; steel sash and trim; electric lighting; considering construction by day labor. (See Mch. Wanted—Beams (Steel); Joists (Wood); Plaster Board; Building Material; Metal Ceilings; Prism Glass; Cement.)

Tex., San Antonio—S. A. Freeborn will erect building on Ave. C., adjoining Magnolia Petroleum building; 25x100 ft.; 1 story; brick.

Va., Graham—J. Boyd will erect 3-story brick addition to Fashion Shop on Main St.; 100x25 ft.; first and second floors for store rooms; third for living or office rooms.

Va., Richmond—Ryland Realty Co. will erect 6 stores at Broadway and Lombardy Sts.; cost \$45,000.

W. Va., Bluefield—E. S. Pedigo Co., purchased building occupied at present by First Natl. Bank and will remodel for addition to store.

W. Va., Huntington—Belle Realty Co., Abe Solof, Pres., plans to erect 5 fireproof brick buildings of 4' or 5 stories on 4th Ave. and 12th St.; cost \$75,000 to \$150,000 each; structure at 4th Ave. and 12th St. to be 60' x90 ft.; 5 stories; 27,000 sq. ft. of floor space; cost \$150,000; will contain store rooms, offices, and bachelor apartments; on southeast corner will erect building, 50x100 ft. for Paul Scott, M. P. Wiswell and J. E. Duncan; on northwest corner will erect similar building for D. B. Gwinn; 50x70 ft. or 130x160 ft.; will erect building on south side of 4th Ave.; 70x200 ft.; 5 stories; 70,000 sq. ft. of floor space; cost \$150,000; also plans to erect building for W. E. Deegans on north side of 4th Ave.

W. Va., Huntington—Watts, Ritter & Co. will erect 5-story concrete and brick building adjoining present store; Robt. L. and Sidney L. Day, Archts.

### Theaters.

Fla., Eustis—Mattocks-Wheeler Bldg. Co., J. E. Mattocks, Pres., will erect theater; cost \$31,000; fireproof; 58x125.6 ft.; brick, concrete and tile; metal ceilings; concrete and hardwood floors; metal doors; wire glass; ventilators; steel sash and trim; Allan J. McDonough, Archt. Address owner. (Lately noted.)

Ga., Waycross—Waycross Amusement Co. will erect theater; seating capacity 1500. Address Frank Adams, Mgr. (See Mch. Wanted—Building Material.)

Mo., Kansas City—Henry K. Given plans to erect picture theater, garage and 8 store rooms on Troost Ave., between Robert Gillham Rd. and 47th St.; theater to seat 1750; garage with clear span of 100 ft.; 4 sales rooms and storage; tapestry brick; cost about \$250,000; Alice Walton, Archt.

Tex., Beeville—Henry Hall will erect theater; 2 stories; brick and tile.

### Warehouses.

Ky., Bradfordsville—Bateman Milling Co., Roy A. Bateman, Pres., will erect warehouse on W. Main St.; 40x60 ft.; 12 ft. high; metal siding; install 10-ton sack stacker, 22-ft. platform wagon and truck scale and steel worm conveyor. Address Mr. Bateman.

Ky., Princeton—Commercial Club is interested in securing site for Ross-Vaughn Tobacco Co. to erect warehouse. (Lately incorrectly noted at W. Va., Princeton.)

## BUILDING CONTRACTS AWARDED

### Apartment Houses.

D. C., Washington—Frank P. Milburn let contract to I. F. Grund for heating 8-story apartment house at 1016 16th St., N.W.; 67x116 ft.; 32 suites; Milburn, Helster & Co., Archts., Union Savings Bank Bldg.; Jas. A. Parsons, Jr., Contr., Southern Bldg. (Previously noted.)

Ga., Atlanta—Mrs. Nora G. Webb will erect apartment house at 591-5 Highland Ave.; 115x90 ft.; 18 apartments; concrete, brick and stucco; asphalt roof; hardwood floors; ornamental terra cotta; interior tile; mail chutes; steam heat; L. R. Wilburn, Archt.; Webb Const. Co., Contr. (Lately noted.)

Ga., Columbus—H. M. Hicks will erect apartment house at 3rd Ave. and 10th St.; cost \$25,000; T. C. Thompson, Contr.

La., New Orleans—Savings & Homestead Assn. will erect duplex apartment house nr. Canal and Cleveland Sts.; cost \$11,700; Anthony M. Pumilia, Contr.

Tenn., Memphis—E. H. Dunlap, Dunlap Medicine Co., will erect apartment house at Madison Ave. and Montgomery St.; 3 stories; 24 apartments of 5 rooms, bath and sun parlor; semi-fireproof; exterior and interior walls of brick; 155x160 ft.; U shape; garage space for 14 cars; cost \$140,000; H. T. McGee, Archt.; Fred B. Young & Son, Contrs.

Tex., Ennis—G. G. Dunkerley let contract to erect 2 apartment houses at W. Tyler and N. Sherman Sts.

Tex., San Antonio—Col. Faulkner is erecting apartment house on Brahan Blvd.; cost \$12,000; 2 stories; frame and stucco; Harvey Page, Archt.; Chas. Webb, Contr.

Va., Norfolk—Newport Court Co. will erect \$50,000 apartment house at Newport and Maryland Aves.; 3 stories; 12 suites; W. T. Gregory, Contr.

### Association and Fraternal.

Ark., Texarkana—Elk Lodge No. 390, N. P. Sanderson and others, Bldg. Comm., will remodel 2-story building on Vine St. and erect additional story; rough surfaced brick; stucco and terra cotta trim; Witt, Selbert & Halsey, Archts.; Quillin & Hyndman, contractors, at \$32,000. (Lately noted.)

### Bank and Office.

Md., Baltimore—First Mortgage Bond Homestead Assn., Baker Bldg., will erect 3-story brick addition at Courtland and Pleasant Sts.; cost \$15,000; 55x25 ft.; brick and stucco; tin roof; oak floors; heating plant, \$3000; city lighting; Wyatt & Nolting, Archts., Keyser Bldg.; Hicks, Tase & Norris, Inc., Contrs., 106 W. Madison St.

N. C., Concord—Citizens Bank & Trust Co. will erect building; cost \$40,000 to \$50,000; 1 story; brick with limestone front; W. H. Peeps, Archt.; E. H. Clement & Co., Contrs., both Charlotte. (Previously noted.)

Va., Lynchburg—Mutual Savings Bank & Trust Co. will erect building; cost \$70,000; 24x100 ft.; fireproof; Indiana limestone exterior; will install fireproof and burglar proof vault to provide safety deposit space; main banking room to have pitch of 25 ft., with mezzanine floor in rear; interior tile; metal doors; safes; concrete floors; steel sash and trim; marble fixtures; Heard & Chesterman, Archts.; C. W. Hancock & Sons, Contrs.

Va., Marion—Bank of Marion will erect building; cost \$65,000; 66x107 ft.; 1, 2 and 3 stories; semi-fireproof; tar and gravel roof; oak, rift pine and red tile floors; metal cell-

ings; plaster board; ornamental terra cotta; safes; steel sash and trim; vault lights; vaults; ventilators; Manley & Young, Archts., Knoxville, Tenn.; Rogers & Leventhal, Contrs.; Hill Bros. Plumbing and heating, both Harriman, Tenn. (Lately noted.)

W. Va., Hurricane—L. J. Dean, Huntington, prepared plans for bank building; cost \$25,000; contract let.

W. Va., Keystone—First Natl. Bank will erect building; 63x40 ft.; concrete foundation; brick walls; limestone trim; composition roof; tile and cement floors; Alex. B. Mahood, Archt., Bluefield; King Lumber Co., Contr., Charlottesville, Va.

W. Va., Oak Hill—Bank of Oak Hill will erect building; cost \$30,000; L. J. Dean, Archt., Foster Bldg.; Mankin Lumber Co., Contr., both Huntington.

### City and County.

Tex., New Braunfels—Auditorium—City will erect auditorium; cost \$12,000; C. B. Schoeppl & Co., Archts., San Antonio; A. C. Miller, Contr., New Braunfels.

### Churches.

Miss., Lumberton—Methodist Church, Rev. J. N. Corley, Pastor, will enlarge building; contract let.

Mo., Jefferson City—Immaculate Conception Catholic Church, Rev. J. B. Pleus, Pastor, 1112 E. McCarthy St., will erect building lately noted; cost \$60,000; 54x124 ft.; brick; tile roof; concrete and hardwood floors; interior tile; vaults; Ludwig Abt., Archt., Mobberly. Address Leuthen Bros., Contrs., 811 E. McCarthy St., Jefferson City. (See Mehy. Wanted—Contractors' Equipment; Saws; Jointer; Boring Machine; Motor Attachment.)

Tenn., Centreville—Methodist Episcopal Church, South, will erect building; cost \$30,000; 55x88 ft.; brick with stone trim; asbestos shingle roof; concrete floor in basement; wood floor in main auditorium; hot air heat, about \$800; electric lighting; Rev. J. A. Baylor, Louisville, Ky., prepared plans; L. B. Connally, Contr., Centreville. Address Rev. Jas. E. Woodward, Pastor. (Lately noted.)

Tex., San Antonio—St. Ann's Catholic Church will erect building; cost \$37,000; 54x75 ft.; 2 stories and basement; reinforced concrete frame; brick and hollow tile; tar and asbestos shingle roof; concrete floors; hollow fireproof and interior tile; ornamental terra cotta; city lighting; John M. Marriott, Archt., 301 Oppenheimer Bldg.; Whelan & Saigh, Contrs., 202 Gibbs Bldg.; Prassel Sash & Door Co., millwork; Braden-Hudson Co., plumbing. (Lately noted.)

### Courthouses.

La., New Iberia—Police Jury of Iberia Parish, Paul Bassin, Secy., will remodel and enlarge courthouse; ornament front and install 4 columns; remove half story on third floor and build full story; remodel second floor; construct vault, etc.; J. W. Smith, Archt., Monroe; Caldwell Bros., Abbeville, contrs. at \$38,500. (Lately noted.)

### Dwellings.

D. C., Washington—C. K. Johnson will erect brick dwellings at 1900 24th St., N.W.; 3 stories; cost \$33,000; W. E. Mooney, Contr.

D. C., Washington—C. E. Wire, Inc., will erect 4 frame dwellings at 6312-24 9th St.,

N. W.; 1 story; cost \$20,000; C. E. Wire, Contr.

D. C., Washington—D. R. Rust will erect 2 dwellings at 6106-08 9th St., N. W.; 2 stories; frame; cost \$12,000; Harvey Wade, Contr.

Fla., West Palm Beach—Albert J. Gale of Racer-Gale-Paddock Co., Cleveland, O., and Lakeworth, Fla., will erect residence in New Lantana; 28x44 ft.; stucco finish; double floors; French windows; Coquina rock fireplaces; tile bath rooms; porches; construct cement driveway; Chas. R. White, Construction Supvr.

La., New Orleans—Dominick Cuccia will erect 2 double residences at Barracks, N. Tonti, N. Rocheblave and Gov. Nichols Sts.; cost \$13,150; Sam P. Simone, Contr.

La., New Orleans—Edw. Haspel will erect residence nr. W. Park Pl. and Poplar St., cost \$10,650; 2 stories; frame; Jones & Roessle, Contrs.

Miss., Indianola—Falcon Smith will erect \$15,000 residence; 38.4x60 ft.; frame and brick veneer; tile roof; concrete, pine and oak floors; interior tile; ventilators; hot water heat; city lighting; J. Rice Scott & Co., Archts., Greenville. Address D. H. Horn, Contr., Indianola.

Okla., Tulsa—Judge Valjean Biddison will erect residence at 2208 S. Norfolk St.; 2 stories; cost \$25,000; Adams & Reddin Realty Co., Contr.

Tenn., Memphis—Dr. R. E. Baldwin will erect residence at 695 S. McLean Blvd.; stucco; 2 stories; 8 rooms; Mahan & Broadwell, Archts.; J. C. Barker, Contr.

### Government and State.

W. Va., Charles Town—Post Office—Treasury Dept., Jas. A. Wetmore, Acting Suprv. Archt., Washington, D. C., will erect \$65,000 postoffice lately noted; hollow fireproof tile; hardwood and concrete floors; safes; interior tile; metal doors; vaults; wire glass; ventilators; steel sash and trim; Wm. MacDonald Const. Co., Contr., 428 Odd Fellows Bldg., St. Louis, Mo. (See Mehy. Wanted—Plumbing; Heating Plant; Electric Lights; Flooring; Plastering; Painting; Millwork; Hardware; Screens; Vault Doors; Building Material; Iron; Steel (Reinforcing); Lumber; Brick; Glass.)

### Hospitals, Sanitariums, Etc.

Mo., St. Joseph—State will erect hospital building, infirmary, kitchen, bakery and auditorium at State Hospital No. 2; let contract at about \$75,000 to erect infirmary; 213x65 ft.; brick and reinforced concrete; composition roof; tile and concrete floors; interior tile; ventilators; steam heat, \$6000; electric lighting, \$3000; Siemens & Arnholt, Archts., 303 Bartlett Bldg.; T. W. Hackett, Contr., 1023 Church St. (Lately noted.)

Okla., Pawhuska—City Commrs., C. M. Hirt, City, Clk. will erect municipal hospital; 85x38 ft.; 3 stories; fireproof; clay tile roof; cement, tile and marble floors; hollow fireproof and interior tile; vaults; electric lighting, \$4800; John O. Bradley & Co., Archts.; Universal Const. Co., contr. at \$44,180; Bancroft-Sego Co., contr. at \$14,453 for vapor vacuum steam heating system and electrical work. Address Universal Const. Co. (Lately noted.)

Tenn., Memphis—Leo Goodman and I. V. Block will erect building for dental clinic on Madison Ave.; cost \$40,000; front portion, 68x44 ft.; rear, 36x90 ft.; 1 story; hollow tile and stonekote; flat roof; French classic design; bronze door and window frame; iron balconies or grills at each window; reception rooms, offices, sterilizing

rooms, X-ray rooms, rest rooms, 18 operating rooms, etc.; Mahan & Broadwell, Archt.; Blair Const. Co., Contr. (Lately noted.)

### Hotels.

N. C., Raleigh—Raleigh Const. Co., 321 Fayetteville St., will erect hotel at Fayetteville and Davie Sts.; cost \$750,000; 10 stories; 105x210 ft.; fireproof; steel frame; exterior of granite and tapestry brick with terra cotta cornice; built-up pitch and gravel roof over concrete; marble, tile and wood floors over concrete; steam heat vacuum system; hollow fireproof tile; interior tile; ornamental terra cotta; metal doors; safes; wire glass; mail chutes; vault lights; ventilators; steel sash and trim; 240 guest rooms; stores on first floor; Jas. A. Salter, Raleigh, and Wm. L. Stoddard, 9 E. 40th St., New York, Asso. Archts.; C. V. York Const. Co., Contr., Raleigh. (Lately noted.)

### Miscellaneous.

La., New Orleans—Society of the Little Sisters of the Poor will alter and erect addition to building at Galvez, Columbus, Laharpe and Johnson Sts.; cost \$52,663; J. V. & R. T. Burkes, Contrs.

Mo. Richmond—Pavillon—Ray County Pavilion Co., will erect sales pavilion and stock exhibition building; cost \$11,000; Paul Paulson, Contr. (Lately noted.)

S. C., Myrtle Beach—Club House—Myrtle Beach Yacht Club will erect building; cost \$21,000; 64x90 ft.; 4 stories; frame; shingle roof; wood floors; electric lighting; W. J. Wilkins & Co., Archts., Florence, S. C., and Wilmington, N. C.; Haynesworth & Lawton, Contrs., Florence. (Lately noted.)

### Schools.

Fla., Gainesville—Board of Public Instruction, E. R. Simmons, Supt., will erect high school and negro graded school buildings; cost \$129,000; Edwards & Sayward, Archts., Atlanta, Ga.; Winston & Pennick, Contrs., Gainesville. (Lately noted.)

Fla., Lake Worth—Palm Beach County Board of Public Instruction, Agnes Ballard, Supt., West Palm Beach, will erect high school building; auditorium, 62x96 ft., including stage, to seat 1400 to 1500; tile and stucco; fireproof moving picture room, domestic science and manual training rooms, library, gymnasium, athletic field, etc.; F. H. Trimble, Archt.; J. C. Hanner, contr. at \$72,622, both Orlando. (Lately noted.)

Fla., Winter Haven—Board of Public Instruction of Polk County will erect high school; cost \$20,000; 78x48 ft.; brick; 4-ply built-up roof; hardwood floors; city lighting; Albert J. Poteet, Archt., Lakeland; S. L. Robinson & Son, Contrs., Haines City. (Lately noted.)

Mo., Mt. Moriah—Board of Education, J. M. Chamber, Secy., will erect school building; cost \$11,225; 39x66 ft.; 2 stories and basement; brick; stone trim; gravel roof; double wood floors; steam heat; H. D.

Pampel, Archt., 404 Finance Bldg., Kansas City; M. Shipley, Contr., Albany.

Tex., El Paso—School Board, Chas. S. Ward, Prest., will erect Alamo Heights school; cost \$130,000; reinforced concrete; asbestos built-up roof; concrete and maple floors; hollow fireproof and interior tile; ventilators; vacuum heating system; Trost & Trost, Archts., 2 Republic Bldg.; V. E. Ware, Contr. (Lately noted.)

Tex., Saratoga—Saratoga Independent School Dist. Trustees, S. W. Foster, Secy., will erect school building; 21 rooms; brick; steam heat; electric lighting; McDonald & Hartford, Contrs., Beaumont. (Previously noted.)

Tex., Schulenburg—School Board, E. W. Klehn, Prest., will erect high school; cost \$50,000; 3 stories; brick; reinforced concrete and hollow tile; tar and gravel roof; interior tile; rolling partitions; concrete and wood floors; stoves; M. L. Waller, Archt., 511 Brady Bldg.; Walker Const. Co., Contr., both San Antonio. (Lately noted.)

Tex., Snyder—School Board, T. E. Jenkins, Prest., will erect \$75,000 school building, lately noted; 100x52 ft.; 2 stories and basement; brick; tar and gravel roof; edge grain and concrete floors; metal ceilings; rolling partitions; wire glass; ventilators; steel sash and trim; Geo. W. Campbell, Archt., Sweetwater. Address W. B. Dane, Contr., box 114, Snyder. (See Mch. Wanted—Building Material; Roofing; Glass; Reinforcements (Concrete); Metal Ceilings; Brick; Paint; Cement.)

W. Va., Burch—See W. Va., Williamson.  
W. Va., Chattaroy—See W. Va., Williamson.

W. Va., Nolan—See W. Va., Williamson.  
W. Va., Williamson—Lee Dist. Board of Education, Claude C. Dove, Secy., Burch, will erect schools at Chattaroy, Nolan and Burch; 1 building, 67.6x27 ft., with wing, 33.2x14 ft.; other 2 buildings, 107.8x60.4 ft.; 2 stories and basement; brick, steel, hollow fireproof tile, stone and frame; maple and concrete floors; steel sash and trim; interior tile; metal doors; rolling partitions; ventilators; L. J. Dean, Archt., Foster Bldg., Huntington; Burch Const. Co., contr. for Chattaroy school at about \$60,000; W. B. Varney, Williamson, contr. for Burch and Nolan schools at \$45,000 and \$25,000 respectively. (Previously noted.)

### Stores.

Ark., Pine Bluff—Couch & Longino will erect \$30,000 mercantile building; 42x114 ft.; concrete; concrete and asbestos roof; 3 stories; hollow fireproof tile; wire glass; metal ceilings; concrete floors; steel sash and trim; also remodel and erect additional story to office building for Arkansas Light & Power Co.; cost \$15,000; 48x112 ft.; hardwood floors; Mitchell Selligman, Archt.; E. C. Royce, Contr. (Lately noted.)

D. C., Washington—Alonzo C. Mather will expend \$18,000 for repairs to building at

916 G. St., N. W.; Fletcher Fireproofing Co., Contr.

Miss., Wesson—W. D. Ross will erect building for Price, Alford & Ross, lately noted; 2 stories; 31x120 ft.; drug store on first floor, offices on second; cost about \$7500; brick; composition galvanized iron roof; cement and wood floors; metal ceilings; safes; stoves about \$100; electric lights, \$150; Homer Ford, Archt.-Contr. (See Mch. Wanted—Flooring (Concrete); Ceilings (Metal); Safes.)

N. C., Newton—R. R. Moose, J. W. Abernethy and G. C. Little will erect store building lately noted; cost \$18,000 to \$22,000; 45x75 ft.; 4 stories; brick and cement; Barrett specification roof; oak and wood block floors; electric lighting; metal ceilings; wire glass; plans by Milton Seltzer; Seltzer Lumber Co., Contr. Address owners. (See Mch. Wanted—Building Material; Glass (Plate); Door Plates (Brass); Sheet Metal Plates (Copper); Cement; Mortar Coloring.)

Tenn., Knoxville—Dan. M. Chambliss will erect addition to drug store; cost \$16,000; 50x118 ft.; brick and wood; gravel roof; maple floors; extend present steam heating plant; electric lighting; freight elevator; B. T. Thomas Co., Contr., Empire Bldg. (Lately noted.)

Tenn., Nashville—Piggly Wiggly Corp. will remodel building on 5th Ave.; cost \$20,000; Marr & Holman, Archts., Stahlman Bldg.; Summer Const. Co., Contrs. (Lately noted.)

Tex., Abilene—R. B. Compton will erect store and office building on Cypress St.; cost \$25,000; 46x130 ft.; 2 stories; brick and stone; tar and gravel roof; tile and cement floors; metal ceilings; interior tile; wire glass; natural gas heat; electric lights; J. L. Scott Construction Co., Archt.-Contr. (Lately noted.)

Tex., Brownsville—Mrs. Ida M. Coombe will erect store building; reinforced concrete and brick; cost \$26,600; M. L. Waller, Archt., San Antonio; E. Joch, Contr., Brownsville.

### Theaters.

Tex., Houston—City Park Board, Herbert Godwin, Prest., will erect Miller Memorial open air theater in Hermann Park; cost \$50,000; cut stone; tile roof; cement floors; Wm. Ward Watkin and M. A. Dowdy, Archts.; Tom Tellepsen, Contr., 606 Prince Theater. (Lately noted.)

### Warehouses.

D. C., Washington—Milburn, Heister & Co., Archts., Union Savings Bank Bldg., let contract to G. & H. Heating Co. to install heating in Washington Street Warehouse and to Otis Elevator Co. for elevator.

N. C., Monroe—Henderson-Snyder Co. will erect warehouse for wholesale grocery; cost about \$9000; 53x120 ft.; 2 stories; brick; composition roof; wood floors; wire glass; ventilators; electric lighting; Otis elevators; Ingram & Tucker, Contrs. Address E. C. Ingram. (Lately noted.)

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

**Acetylene Welding and Cutting Apparatus.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Mch. 22 to furnish acetylene welding and cutting apparatus, delivery to Depot Quartermaster, 1100 S. Broad St., Philadelphia, Pa.; packed for overseas shipment; Sch. No. 261; information on application.

**Asphalt Paving Plant.**—City, H. J. Graeser, in charge, Tyler, Tex.—To purchase asphalt paving plant. (See Construction News—Road and Street Construction.)

**Automatic Water System.**—Electric Prod-

ucts Co., Edgar M. Clark, Secy., 500 St. Paul St., Baltimore, Md.—To correspond with mfrs. of automatic water system, with view to representation. (See Construction News—Miscellaneous Enterprises.)

**Bank Fixtures.**—Citizens Bank, Walker S. Utsey, Prest., St. George, S. C.—Bank fixtures. (See Buildings Proposed, Bank and Office.)

**Beams (Steel).**—P. H. Luecke, Giddings, Tex.—Steel I beams, 29 ft. long, tested to carry at least 30 tons of brick work; also 2

steel beams, 29 ft. (See Buildings Proposed, Stores.)

**Boilers.**—City, J. J. Hayes, Mayor, Vicksburg, Miss.—Bids until Apr. 3 for 2 new boilers; plans, etc., from Mgr. Water-Works. (See Construction News—Water-Works.)

**Boiler.**—Sam'l T. Williams, 223 N. Calvert St., Baltimore, Md.—75 H. P. boiler for heating purposes, not over 50 lbs. pressure.

**Boiler.**—Pinetops Tobacco Co., Frank H. Saunders, Mgr., Pinetops, N. C.—100 to 150 H. P. second-hand boiler.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



**Boilers, etc.**—G. J. Adams, 8 Wall St., Norwalk, Conn.—Three 50 to 60 H. P. second-hand portable boilers on wheels; one 80 H. P. Scotch marine; 200 H. P., H. R. T. boiler good for 125 lbs. in Maryland.

**Boiler**—F. M. Moise, Secy., Carolina Machinery Co., Sumter, S. C.—Names and addresses mfrs. of cornish type boiler or portable boiler of return tubular type with fire box running all way through boiler.

**Boiler**—Garland Gray, Waverly, Va.—40 H. P. return tubular boiler, half arch front; good condition, not over 10 yrs. old.

**Boilers**—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids until April 14 for removing 2 boilers, etc. and furnish and install 2 new horizontal return tubular, high pressure, steam boilers with down draft furnaces, at U. S. Marine Hospital, Evansville, Ind.; information on application.

**Boring Machine**—Leuthen Bros., 811 E. McCarthy St., Jefferson City, Mo.—Boring Machine. (See Contractors' Equipment.)

**Brick**—City, H. J. Graeser, in charge, Tyler, Tex.—To purchase brick. (See Construction News—Road and Street Construction.)

**Brick**—W. B. Dane, Box 114, Snyder, Tex.—Brick. (See Building Material.)

**Brick**—J. G. Dudley, Shelby, N. C.—White face brick. (See Buildings Proposed—Stores.)

**Brick**—See Building Material.

**Bridge Construction**—Board of Awards, Baltimore, Md.—Bids until Mch. 29 to complete Biddle St. bridge over Pennsylvania railroad tracks; three spans topped by ornamental light; 148-ft. long and 66-ft. wide; cost \$40,000. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction**—Laurens County Commrs. Roads and Revenues, J. H. Witherington, Secy., Dublin, Ga.—Bids until April 4 to construct reinforced concrete bridge over Rocky Creek; Federal Aid Project 240, State Aid Project S 12-20; plans, etc., from State Highway Engr., Atlanta, Ga.; E. N. Parker, Div. Engr., Dublin. (See Construction News—Bridges, Culverts, Viaducts, etc.)

**Bridge Construction**—Bell County, J. W. Sutton, County Judge, Belton, Tex.—Bids about April for building reinforced concrete bridges on State Highway No. 2; S. J. Treadway, County Engr.

**Bridge Construction**—Calcasieu Parish Police Jury, W. J. Prater, Prest., Lake Charles, La.—Bids until Apr. 11 to build approaches to Moss Bluff highway bridge across Calcasieu river; cresooted timber approach trestle at each end of main bridge; total length trestle 900 ft.; plans, etc., from Terrell Bartlett, Engrs., San Antonio, Tex. (See Construction News—Bridges, Culverts, Viaducts, etc.)

**Bridge Construction**—State Highway Dept., of Georgia, First Road Div., Rome, Ga., lee Creek; 36,139 lbs. reinforcing steel, etc.; bids until April 1 to build bridge over Euhan-construction road; plans, etc., with A. A. Simon-ton, Div. Engr., Rome, Ga., State Highway Engr., Atlanta, Ga., and The Mayor, Rock-mart, Ga. (See Construction News—Bridges, Culverts, Viaducts, etc.)

**Bridge Construction**—State Highway Dept., Jefferson City, Mo.—Bids until Mch. 23 to build reinforced concrete low water bridge on State road from Gainesville eastward; Ozark County, Federal Aid Project No. 111, Section B; cost \$7,063.80; H. P. Mobberly, Div. Engr., Woodruff Bldg., Springfield, Mo. (See Construction News—Bridges, Culverts, Viaducts, etc.)

**Bucket (Clam Shell)**—Jewel Supply &

Equipment Co., 34 S. Calvert St., Baltimore, Md.—¾ yd. clam shell bucket.

**Bucket (Clam Shell)**—Missouri Portland Cement Co., Union & Planters Bank Bldg., Memphis, Tenn.—2½ or 3 yd. clam shell bucket, Hayward preferred, or orange peel bucket; state price, location and condition.

**Building Material**—D. A. Leffingwell, Jr., 106 Front Ave., Ashland, Ky.—Building Material, including hollow tile, bath room, mantel and porch tile, tile roofing and other materials. (See Buildings Proposed, Dwellings.)

**Building Material**—W. B. Dane, Box 114, Snyder, Tex.—Brick, glass, paint, cement, roofing, reinforcements for concrete, metal ceilings, etc. (See Contracts Awarded, Schools.)

**Building Material**—P. H. Luecke, Giddings, Tex.—Metal ceilings, hardwood flooring, plaster board, ornamental terra cotta, prism glass, cement, steel sash and trim, rolling partitions. (See Buildings Proposed, Stores.)

**Building Material**—Ellis Campbell, Wills Point, Tex.—Hollow fireproof and interior tile, metal ceilings, plaster board, ornamental terra cotta, concrete flooring. (See Buildings Proposed, Hotels.)

**Building Material**—Frank Adams, Mgr., Waycross Amusement Co., Waycross, Ga.—Information on building material. (See Buildings Proposed—Theaters.)

**Building Material**—Morris Cafritz, 717 14th St., N. W., Washington, D. C.—Building material and equipment. (See Buildings Proposed, Dwellings.)

**Building Material**—R. R. Moose, Newton, N. C.—Prism glass, prism curb glass, plate glass, glass bottom door plates, copper settings, copper sheeting plates, white cement, white coloring for mortar. (See Contracts Awarded, Stores.)

**Building Material**—Wm. MacDonald Const. Co., 428 Odd Fellows Bldg., St. Louis, Mo.—Building material, including stone and granite, iron and steel, reinforcing steel, lumber, brick and glass. (See Contracts Awarded, Government and State, W. Va., Charles Town.)

**Bulkhead**—City of St. Petersburg, Fla., G. B. Shepard, Director of Finance.—Bids until Mch. 27 to furnish labor, materials and apparatus necessary and constructing reinforced concrete sheet pile bulkhead, 300 ft. long at city wharf, Bayboro harbor; plans with E. C. Garvin, Director of Public Works. (See Construction News—Miscellaneous Construction.)

**Ceilings (Metal)**—Price, Alford & Ross, Wesson, Miss.—Metal ceilings. (See Contracts Awarded—Stores.)

**Cement**—P. H. Luecke, Giddings, Tex.—Cement. (See Building Material.)

**Cement**—R. R. Moose, Newton, N. C.—White cement. (See Building Material.)

**Cement**—W. B. Dane, Box 114, Snyder, Tex.—Cement. (See Building Material.)

**Chair Machinery**—Rodgers-Wade Furniture Co., W. C. Clark, Prest.-Treas., Paris, Tex.—To purchase chair mchy. (See Construction News—Woodworking Plants.)

**Clay (Fire) Machinery**—T. L. Jackson, Phil Campbell, Ala.—To correspond with mfrs. of fire clay mchy., also data on market for fire clay.

**Contractors' Equipment**—Leuthen Bros., 811 E. McCarthy St., Jefferson City, Mo.—Combination machine consisting of rip saw, cut-off saw, band saw, jointer and boring machine, motor attachments for about 2-horse motor. (See Contracts Awarded, Churches.)

**Conveyor**—L. D. Wyly, 215 Ridgewood Ave., Orlando, Fla.—Names and addresses mfrs. of portable sand conveyor or digger to load sand from bins into gondolas, flats and box cars, complete with gas engine to move on track constructed for the purpose.

**Coolers, etc.**—Capital Feed Mfg. Co., L. S. Doherty, Mgr., Box 117, Baton Rouge, La.—Coolers, etc. (See Construction News—Flour, Feed and Meal Mills.)

**Copper, Iron, etc.**—Southern Draft Regulator Co., A. M. Oeland, Prest., Greenville, S. C.—Prices on galvanized iron, sheet copper, black sheet iron, small angle iron used in mfr. of regulator. (See Construction News—Metal-working Plants.)

**Cotton Chopper**—W. F. Hurley, Newport, Ark.—To contract for mfr. of cotton chopper.

**Crushers (Rock)**—See Paving Equipment.

**Derrick**—Jewel Supply & Equipment Co., 34 S. Calvert St., Baltimore, Md.—60 ft. Stiff leg derrick.

**Derrick**—J. O. Bell, Secy., Board of Road Trustees, Henderson County, Tuxedo, N. C.—Second-hand steel derrick complete with 100 ft. boom; subject to inspection; state price and condition.

**Door Plates (Brass)**—R. R. Moose, Newton, N. C.—Brass bottom door plates. (See Building Material.)

**Electrical Fixtures**—D. A. Leffingwell, Jr., 106 Front Ave., Ashland, Ky.—Electrical Fixtures. (See Buildings Proposed, Dwellings.)

**Electric Lights**—Wm. MacDonald Const. Co., 428 Odd Fellows Bldg., St. Louis, Mo.—Electric lights. (See Contracts Awarded, Government and State, W. Va., Charles Town.)

**Elevator**—J. G. Dudley, Shelby, N. C.—Elevator. (See Buildings Proposed—Stores.)

**Engine**—Garland Gray, Waverly, Va.—One Ames Iron Works 10x12 in. center crank engine; good condition, not over 10 yrs. old.

**Engine (Oil)**—City, J. M. Thompson, Clk., Germantown, Tenn.—Bids open for 35 to 40-H.P. oil engine. (See Construction News—Electric Plants.)

**Engine (Oil)**—J. H. and Frank H. Saunders, Lock Box No. 65, Pinetops, N. C.—Crude oil engine for flour and meal mill. (See Construction News—Flour, Feed and Meal Mills.)

**Feed Mixing Machinery**—Capital Feed Mfg. Co., L. S. Doherty, Mgr., Box 117, Baton Rouge, La.—Feed Mixing Machinery. (See Construction News—Flour, Feed and Meal Mills.)

**Flooring**—Wm. MacDonald Const. Co., 428 Odd Fellows Bldg., St. Louis, Mo.—Marble, tile and terrazzo flooring. (See Contracts Awarded, Government and State, W. Va., Charles Town.)

**Furnace**—E. C. Veasey, West Point, Va.—To correspond with mfrs. to build tobacco furnace.

**Garage Equipment**—Crech Auto Repair Co., Gaylor Crech, Mgr., 209 E. 20th St., Joplin, Mo.—Drill press, lathe, emery wheel and stand.

**Generator**—City, J. M. Thompson, Clk., Germantown, Tenn.—Bids open for 25 A.C. K.V.A. generator. (See Construction News—Electric Plants.)

**Glass**—See Building Material.

**Glass**—W. B. Dane, Box 114, Snyder, Tex.—Glass. (See Building Material.)

**Glass (Plate)**—R. R. Moose, Newton, N. C.—Plate glass. (See Building Material.)

**Grader (Cotton Seed)**—N. L. Broughton Cotton Seed Co., Garner, N. C.—To corre-

spond with mfrs. of or dealers in cotton seed grader or culler.

**Hay Cutters.**—Capital Feed Mfg. Co., L. S. Doherty, Mgr., Box 117, Baton Rouge, La.—Hay Cutters. (See Construction News—Flour, Feed and Meal Mills.)

**Hardware.**—Wm. MacDonald Const. Co., 428 Odd Fellows Bldg., St. Louis, Mo.—Hardware. (See Contracts Awarded, Government and State, W. Va., Charles Town.)

**Hardware, etc.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Mch. 23 to furnish storage batteries; dry cell batteries; flashlights; funnels; grinders; tools; hammers; machinists' handles; chisels; coppers; soldering; needles; harness; scales; typewriters; nails; barbed, copper and insulated wire, etc.

**Heating Plant.**—D. A. Leffingwell, Jr., 106 Front Ave., Ashland, Ky.—hot air furnace. (See Buildings Proposed, Dwellings.)

**Heating Plant.**—Wm. MacDonald Const. Co., 428 Odd Fellows Bldg., St. Louis, Mo.—Heating plant. (See Contracts Awarded, Government and State, W. Va., Charles Town.)

**Hoist (Electric).**—Jewel Supply & Equipment Co., 34 S. Calvert St., Baltimore, Md.—Electric hoist with sufficient capacity to handle  $\frac{3}{4}$  yd. clam shell bucket.

**Hydrants.**—Water-works Equipment.

**I Beams.**—J. G. Dudley, Shelby, N. C.—I beams. (See Buildings Proposed—Stores.)

**Ice Plant, etc.**—City of McIntosh, Fla., address S. H. Gaitskill.—10 ton daily capacity ice and cold storage plant; prefer private ownership, but will form stock company.

**Iron.**—See Building Material.

**Joint (Expansion).**—Edgar Tufts, Banner Elk, N. C.—Expansion joint for steel water pipe that is 26-in. diam. and 1085 ft. long.

**Jointer.**—Leuthen Bros., 811 E. McCarthy St., Jefferson City, Mo.—Jointers. (See Contractors' Equipment.)

**Joists (Wood).**—P. H. Luecke, Giddings, Tex.—Wood joists, 29 ft. long, 14, 16 and 18 in. wide and 2 or 4 in. thick. (See Buildings Proposed, Stores.)

**Laundry Machinery.**—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids until Mch. 29 to furnish and deliver laundry mch., all carrier charges paid, to respective Supt's. of Construction, U. S. Veterans Hospital, Ft. Logan H. Roots, Ark.; U. S. Veterans Hospital, Ft. Walla Walla, Wash., and U. S. Veterans Hospital, Oteen, N. C.; information on application.

**Locomotive.**—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Second-hand 50-ton, standard gauge, 4 drive, saddle tank locomotive.

**Locomotive (Electric).**—Joplin Machinery Exchange, 211 E. 4th St., Joplin, Mo.—2 to 5 ton electric locomotive, either storage battery type or trolley service.

**Lumber.**—See Building Material.

**Manufacturing Patents.**—Gail Mfg. Co., George William Gail, Prest., 1503 Munsey Bldg., Baltimore, Md.—To correspond with owners of patents with view to manufacturing and selling on royalty basis.

**Meal Mill Machinery.**—J. H. and Frank H. Saunders, Lock Box No. 65, Pinetops, N. C.—Meal mill machinery. (See Construction News—Flour, Feed and Meal Mills.)

**Metal Ceilings.**—W. B. Dane, Box 114, Snyder, Tex.—Metal ceilings. (See Building Material.)

**Metal Ceilings.**—Ellis Campbell, Willis Point, Tex.—Metal ceilings. (See Building Material.)

**Metal Ceilings.**—P. H. Luecke, Giddings,

Tex.—Metal ceilings. (See Building Material.)

**Metal-Working.**—Southern Draft Regulator Co., A. M. Oeland, Prest., 303 Wallace Bldg., Greenville, S. C.—To correspond with metal workers to contract for mfr. of draft regulators. (See Construction News—Metal-Working Plants.)

**Millwork.**—Wm. MacDonald Const. Co., 428 Odd Fellows Bldg., St. Louis, Mo.—Millwork. (See Contracts Awarded, Government and State, W. Va., Charles Town.)

**Mining Machinery.**—Braehed Coal Mining Co., Blocton, Ala.—Mchy. for 40-ton capacity coal mine. (See Construction News—Coal Mines and Coke Ovens.)

**Miscellaneous Supplies.**—Old Ladies Home Assn., Jackson, Miss.—Invite bids on 36 single white beds; 6 single white hospital beds; 42 single mattresses; 42 springs; 42 medium rockers; 42 straight chairs; 40 small tables; 40 rugs; 40 dressers; 3 long dining tables, mission; 48 mission dining chairs and shades for entire annex.

**Miscellaneous Supplies.**—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until Mch. 27 to furnish: Bronze; grease; plungers; glasses; twine; emery cloth; rags; colored wool waste. Blanks and information (Circular 2287) on application to offices of Panama Canal; Asst. Purchasing Agents at Fort Mason, San Francisco, Cal.

**Miscellaneous Supplies.**—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until April 4 to furnish: Window, plate, wire and maze glass; air, steam, suction and water hose; soda ash; copper sulphate; glycerine; paraffine wax; paints; varnishes; zinc oxide; graphite; lubricating oil; machine oil; bunting and burlap; cotton waste; muslin; toweling; screen doors; casement sash; molding and capping; medicine cabinets; cypress shingles, etc. Blank forms and information (Circular 1473) on application to Panama Canal; Asst. Purchasing Agents at New York, New Orleans, Fort Mason, San Francisco; U. S. Engr. offices throughout country.

**Mixer (Concrete).**—Sam'l T. Williams, 223 N. Calvert St., Baltimore, Md.—Second-hand concrete mixer, suitable for one bag mix.

**Mortar Coloring.**—R. R. Moose, Newton, N. C.—Mortar coloring. (See Building Material.)

**Motor Attachments.**—Leuthen Bros., 811 E. McCarthy St., Jefferson City, Mo.—Motor attachments for about 2-horse motor. (See Contractors' Equipment.)

**Motors.**—Battery Machinery Co., Rome, Ga.—Two 25 H. P. 3 phase, 60 cycle, 2200 volt motors with pulley, base and starter, either 1800, 1200 or 900 revolutions.

**Packing Plant Equipment.**—C. M. Brown, Box 166, Washington, N. C.—Data and prices on establishment of packing plant, also names and addresses mfrs. of equipment. (See Construction News—Canning and Packing Plants.)

**Paint.**—W. B. Dane, Box 114 Snyder, Tex.—Paint. (See Building Material.)

**Paint and Turpentine.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Mch. 21 to furnish 2500 gals. battleship gray paint, semi-paste; 1000 gals. turpentine, delivery to Depot Quartermaster, 1100 S. Broad St., Philadelphia, Pa.; Sch. No. 254; information on application.

**Painting.**—Wm. MacDonald Const. Co., 428 Odd Fellows Bldg., St. Louis, Mo.—Painting. (See Contracts Awarded, Government and State, W. Va., Charles Town.)

**Paving.**—Town, M. G. Blake, City Mgr.,

Tryon, N. C.—Bids until Mch. 28 to construct 9000 sq. yds. paving; 9900 sq. yds. sidewalk, etc.; asphalt, concrete, etc.; Carolina Engineering Co., Engr., Wilmington, N. C. (See Construction News—Road and Street Construction.)

**Paving.**—City, Chas. H. Brown, Mayor, Commr., Tampa, Fla.—Bids opened to grade, pave and curb Packwood Ave., 3870 sq. yds.; 6900 sq. yds. pavement on S. Dakota Ave.; 2½-in. asphalt blocks; 2540 lin. ft. curbing; 2½-in. asphalt blocks; 1600 lin. ft. curbing, etc.; specifications from City Engr. (See Construction News—Road and Street Construction.)

**Paving.**—City, W. H. Hare, Clk., Selma, N. C.—Bids until Mch. 31 to construct 5500 sq. yds. concrete, brick or asphalt pavement; specifications, etc., from Wm. M. Platt, Engr., Durham, N. C. (See Construction News—Road and Street Construction.)

**Paving.**—City Commrs., J. H. Howell, Mayor, Waynesville, N. C.—Bids until Mch. 30 to construct 32,755 sq. yds. paving; sheet asphalt, asphaltic concrete, warrentite-bitulithic, Kentucky rock asphalt, asphalt macadam, brick, cement concrete; 14,546 lin. ft. curb and gutter; 3619 sq. yds. sidewalk; storm sewers, etc.; plans, etc., on file with Mayor, and Carolina Engineering Co., Engr., 412 Southern Bldg., Wilmington, N. C. (See Construction News—Road and Street Construction.)

**Paving.**—City, W. H. Gainey, Engr., Valdosta, Ga.—Bids until April 20 to construct 10,500 yds. street paving; asphalt, brick or concrete; 4500 yds. concrete sidewalk; 7000-ft. granite curb; etc.; plans, etc., on file with City Clk. (See Construction News—Road and Street Construction.)

**Paving.**—City, W. E. Crace, Clk., Catlettsburg, Ky.—Bids until Mch. 31 to grade and pave Louisa road from 36th St., Walnut St. from 25th to north line of 24th St.; etc.; plans, etc., from City Clk. (See Construction News—Road and Street Construction.)

**Paving.**—City, T. E. Marshall, Clk., New Albany, Miss.—Will invite bids to construct slag or macadam streets. (See Construction News—Road and Street Construction.)

**Paving.**—City, H. C. Harvley, Mayor, Greenville, S. C.—Bids until April 11 to construct 25,000 sq. yds. street paving; 15,000 sq. yds. sidewalks; 20,000 lin. ft. granite curb, etc.; plans, etc., from W. D. Neves, City Engr. (See Construction News—Road and Street Construction.)

**Paving.**—Town, S. B. Richardson, Mayor, Southern Pines, N. C.—Bids until April 11 to construct 33,000 sq. yds. asphalt or other pavement; 5500 lin. ft. curb and gutter; 4200 sq. yds. sidewalk; storm water drains, etc.; plans, etc., with R. L. Chandler, Clk., Southern Pines, and Gilbert C. White Co., Engr., Durham, N. C. (See Construction News—Road and Street Construction.)

**Paving Equipment.**—Wolf Bros., 217 E. 10th St., New Albany, Ind.—To purchase rollers and rock crushers.

**Paving Materials.**—City, H. C. Harvley, Mayor, Greenville, S. C.—To purchase asphalt, sand and stone.

**Paving Materials.**—Wolf Bros., 217 E. 10th St., New Albany, Ind.—To purchase road oil and road binders.

**Piling (Steel).**—Lewter F. Hobbs, Norfolk, Va.—70 pieces of interlocking steel sheet piling 15 ft. long.

**Pipe, etc.**—See Water-works Equipment.

**Pipe.**—City, J. M. Thompson, Clk., Germantown, Tenn.—Bids open for several thousand feet 1 to 4-in. cast iron and galvanized pipe. (See Construction News—Water-Works.)

**Piping, etc.**—Southern Draft Regulator Co., A. M. Oeland, Prest., Greenville, S. C.—Prices on piping up to 1/2-in. and fittings, pipe covering, etc., used in mfrs. of regulators. (See Construction News—Metal-working Plants.)

**Plaster Board.**—P. H. Luecke, Giddings, Tex.—Plaster Board. (See Building Material.)

**Plaster Board.**—Ellis Campbell, Wills Point, Tex.—Plaster Board. (See Building Material.)

**Plastering.**—Wm. MacDonald Const. Co., 428 Odd Fellows Bldg., St. Louis, Mo.—Plastering. (See Contracts Awarded, Government and State, W. Va., Charles Town.)

**Plate Glass.**—J. G. Dudley, Shelby, N. C.—Plate glass. (See Buildings Proposed—Stores.)

**Plumbing.**—D. A. Leffingwell, Jr., 106 Front Ave., Ashland, Ky.—Bath room fixtures, etc. (See Buildings Proposed, Dwellings.)

**Plumbing Fixtures.**—J. D. Newcomer, Archt., 32 Broad St., Charleston, S. C.—Bids until April 6 to remove present plumbing fixtures and install 83 individual plumbing fixtures with alterations and additions required for the work in Charleston Orphan House, 100 Calhoun St.; Edward H. Pinckney, Secy., Board of Comms.

**Plumbing.**—Wm. MacDonald Const. Co., 428 Odd Fellows Bldg., St. Louis, Mo.—Plumbing. (See Contracts Awarded, Government and State, W. Va., Charles Town.)

**Power House.**—North State Power Co., L. H. Couch, V.-P. and Gen. Mgr., 118 W. Martin St., Raleigh, N. C.—Prices on 36x27 ft. fireproof building; corrugated iron sides and roof; 7-ft. and 3-ft. 6-in. doors; 4 windows and overhead clearance of 8 ft. (See Construction News—Electric Plants.)

**Prism Glass.**—P. H. Luecke, Giddings, Tex.—Prism Glass. (See Building Material.)

**Pump Head.**—City, J. M. Thompson, Clk., Germantown, Tenn.—Bids open for pump head. (See Construction News—Water-Works.)

**Pumps (Electric).**—Leslie Picklesimer, Mgr., Equitable Lumber & Supply Co., Jeff. Ky.—Prices on electric pumps. (See Construction News—Lumber Manufacturing.)

**Radio Telephone Outfit.**—Dr. A. K. Shelton, Petros, Tenn.—To correspond with mfrs. or of dealers in radio telephone outfits, also data on same.

**Ranges.**—Geo. W. Bolinger, Contr., Klondike, Tenn.—100 small family ranges, catalogs and prices f. o. b. Florence, Ala.

**Refrigerating Equipment, etc.**—Dr. W. W. Faison, Supt., State Hospital, Goldsboro, N. C.—Bids until Mch. 28 to install general power plant equipment and accessories; steam heating equipment; water filtration and refrigerating equipment; H. A. Underwood, Engr., Joint Building Committee, Commercial Bank Bldg., Raleigh, N. C.; Wiley & Wilson, Conslt. Engr., Lynchburg, Va.

**Reinforcements (Concrete).**—W. B. Dane, Box 114 Snyder, Tex.—Reinforcement for concrete. (See Building Material.)

**Road Construction.**—Jasper County Clk., Carthage, Mo.—Bids until Mch. 23 to grade and construct culverts near Lawrence county; 7 mi.; \$30,000. (See Construction News—Road and Street Construction.)

**Road Construction.**—Highway Comms., Bushnell, N. C.—Bids until April 8 to construct 9 mi. highway between Noland, N. C. and Chambers Creek in Swain County; plans from Div. Engr., Bushnell, N. C. (See Construction News—Road and Street Construction.)

**Road Construction.**—Mecklenburg County Highway Comsn., Charlotte, N. C.—Bids until Mch. 27 to improve Providence road from 6 mi. post to Myers Park store; 3.5 mi.; also construct Derita road; cost \$200,000. (See Construction News—Road and Street Construction.)

**Road Construction.**—Morgan County Board of Revenue, Decatur, Ala.—Bids until April 12 to construct 7.4 mi. extension of Falkville west pike from McKendree Chapel west to Danville and Bashams Gap road; 14.6 mi. Decatur and Danville road; 14.6 mi. extension of Falkville east pike; 3 mi. from Eva north to Oden Ridge schoolhouse; 7.4 mi. Decatur and Somerville pike; 5.6 mi. Florette and Ryans X roads; 7.9 mi. Hartselle and Valhermosa pike; 3.2 mi. Flint and Danville road; etc.; plans, etc., with L. P. Troup, Judge of Probate. (See Construction News—Road and Street Construction.)

**Road Construction.**—Jefferson County Board of Revenue, Birmingham, Ala.—Bids until April 11 to construct 12 mi. Ensley-Mulga-Edgewater-Wylam and Parkstown road; bituminous top placed on reconstructed slag or chert foundation; 120,000 sq. yds.; 10 mi. Warrior-Robbins road; 20,000 cu. yds. cinders or chert surfacing; 12 mi. Elbow to Port of Birmingham road; 24,000 cu. yds. cinders or chert surfacing; 5 mi. Trussville-County line road; 10,000 cu. yds. chert, slag or cinder surfacing; 6 mi. Bradford-Trafford road; 30,000 cu. yds. grading; 5 mi. Filter plant to Overton Mine road; total cost \$550,000; plans, etc., from C. J. Rogers, County Highway Engr. (See Construction News—Road and Street Construction.)

**Road Construction.**—Warren County Highway Comms., Vicksburg, Miss.—Bids until Apr. 4 to construct 6.46 mi. Baldwin's Ferry road; plans, etc., from Highway Engr. and Clk. Board Suprvs. (See Construction News—Road and Street Construction.)

**Road Construction.**—Dept. Highways, Nashville, Tenn.—Bids until Mch. 31 to surface section of State Highway No. 1 between Huntingdon and Camden in Carroll County; 12.27 mi. bituminous macadam surfacing 16-ft. wide; Federal Aid Project No. 21; plans, etc., from D. Q. McComb, Ch. Engr., and Div. Engr.; both Nashville, Tenn. (See Construction News—Road and Street Construction.)

**Road Construction.**—State Highway Dept., of Georgia, First Road Div., Rome, Ga.—Bids until April 1 to construct 1 mi. Cedar-town-Rockmart highway; chert surfaced roadway; build bridge over Euharlee Creek; plans, etc., on file with A. A. Simonton, Div. Engr., Rome, Ga., State Highway Engr., Atlanta, Ga., and the Mayor, Rockmart, Ga. (See Construction News—Road and Street Construction.)

**Road Construction.**—Dept. Highways, Nashville, Tenn.—Bids until Mch. 31 to surface section of State Highway No. 47 between Hohenwald and Summertown in Lewis and Lawrence counties; 20.47 mi. chert surfacing; Federal Aid Project No. 27; plans, etc., with D. Q. McComb, Ch. Engr., and Div. Engr.; both Nashville. (See Construction News—Road and Street Construction.)

**Road Construction.**—State Highway Dept., Jefferson City, Mo.—Bids until Mch. 28 to construct 21.24 mi. State road from Gainesville eastward; cost \$65,092; Ozark County, Federal Aid Project No. 111, Section B; H. P. Mobberly, Div. Engr., Woodruff Bldg., Springfield, Mo. (See Construction News—Road and Street Construction.)

**Road Construction.**—State Highway Dept., Jefferson City, Mo.—Bids until Mch. 30 to construct 1.549 mi. State road from Moberly westward; combination concrete header curb

and base course with vitrified brick bituminous filler surface course, cost \$64,929.64, or two course reinforced concrete pavement, cost \$61,375.40; Randolph County, Federal Aid Project 186; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo. (See Construction News—Road and Street Construction.)

**Roller Mill Machinery.**—J. H. and Frank H. Saunders, Lock Box No. 65, Pinetops, N. C.—Roller mill machinery. (See Construction News—Flour, Feed and Meal Mills.)

**Roofing.**—W. B. Dane, Box 114 Snyder, Tex.—Roofing. (See Building Material.)

**Roofing (Concrete).**—Price, Alford & Ross, Wesson, Miss.—Concrete roofing. (See Contracts Awarded—Stores.)

**Safes.**—Price, Alford & Ross, Wesson, Miss.—Safes. (See Contracts Awarded—Stores.)

**Saws.**—Leuthen Bros., 811 E. McCarthy St., Jefferson City, Mo.—Rip saw, cut-off saw and band saw. (See Contractors' Equipment.)

**Screens.**—Wm. MacDonald Const. Co., 428 Odd Fellows Bldg., St. Louis, Mo.—Screens. (See Contracts Awarded, Government and State, W. Va., Charles Town.)

**Sewers.**—City, S. B. Richardson, Mayor, Southern Pines, N. C.—Bids until April 11 to improve sewer system; lay 9700 ft. storm water drains; 8700 lin. ft. sanitary sewers; plans, etc., with R. L. Chandler, City Clk., or from Gilbert C. White Co., Engr., Durham, N. C. (See Construction News—Sewer Construction.)

**Sewers.**—City, H. C. Harvley, Mayor, G. Wells, City Clk., Greenville, S. C.—Bids until April 11 to install storm sewers, catch basins and manholes, etc.; plans, etc., from W. D. Neeves, City Engr. (See Construction News—Sewer Construction.)

**Sewers.**—City, Rowlett Paine, Mayor, Memphis, Tenn.—Bids until Mch. 28 to construct sanitary sewers in various districts; lay 10,947 lin. ft. 6 to 10-in. pipe with necessary manholes south of Trigg Ave., and west of Y. & H. V. R. R.; 27,032 lin. ft. 6 to 15-in. pipe with necessary manholes; 51,697 lin. ft. 6 to 18-in. pipe with necessary manholes; C. C. Pashby, Clk. (See Construction News—Sewer Construction.)

**Sewers.**—City, Board of Awards, Mayor Wm. F. Broening, Prest., Baltimore, Md.—Bids until March 29 to construct storm water drains in Fairmount Ave., Clinton and Fayette Sts. (Storm Water Contract No. 50); 1800 lin. ft. underdrain; 4380 cu. yds. concrete; 524,000 lbs. reinforcing steel; 4 manholes, etc.; plans, etc. from H. G. Perring, Highways Engr. (See Construction News—Sewer Construction.)

**Sewers.**—Town, C. C. Broughton, Mayor, Troy N. C.—Bid opened to construct sanitary sewer pipe lines and septic tanks; plans, etc., on file or from Harwood Beebe, Engr., Spartanburg, S. C. (See Construction News—Sewer Construction.)

**Sheeting Plates (Copper).**—R. R. Moose, Newton, N. C.—Copper sheeting plates. (See Building Material.)

**Shingles (Metal).**—Geo. W. Bolinger, Contr., Klondike, Tenn.—1000 squares metal shingles; samples and prices f. o. b. Florence, Ala.

**Steel (Reinforcing).**—See Building Material.

**Tank.**—City, J. M. Thompson, Clk., Germantown, Tenn.—Bids open for 25,000 to 30,000 steel tank on 75 ft. tower. (See Construction News—Water-Works.)

**Terra Cotta (Ornamental).**—Ellis Campbell, Wills Point, Tex.—Ornamental terra cotta. (See Building Material.)

**Tile.**—D. A. Leffingwell, Jr., 106 Front



Ave., Ashland, Ky.—Tile. (See Building Material.)

Tile.—Ellis Campbell, Wills Point, Tex.—Hollow fireproof and interior tile. (See Building Material.)

Tile.—Citizens Bank, Walker S. Utsey, Prest., St. George, S. C.—Tile. (See Buildings Proposed, Bank and Office.)

Truck Bodies.—Harriman Cement & Stone Co., Harriman, Tenn.—Two 3 yd. truck bodies with hydraulic hoist. (See Construction News—Concrete and Cement Pits.)

Vault Doors.—Wm. MacDonald Const. Co., 428 Odd Fellows Bldg., St. Louis, Mo.—Vault doors. (See Contracts Awarded, Government and State, W. Va., Charles Town.)

Ventilators.—Ellis Campbell, Wills Point, Tex.—Ventilators. (See Buildings Proposed, Hotels.)

Water-Works. — Town, C. C. Broughton, Mayor, Troy, N. C.—Bids opened to construct water mains; plans, etc., on file or from Harwood Beebe, Engr., Spartanburg, S. C. (See Construction News—Water-Works.)

Wall Board Ceiling. — Geo. W. Bolinger, Contr., Klondike, Tenn.—2000 squares wall board ceiling; samples and price f. o. b.

Water-Works. — City, S. B. Richardson, Mayor, Southern Pines, N. C.—Bids until April 11 to improve water-works; lay 8700 lin. ft. 6 and 8-in. cast iron water mains; plans, etc., with R. L. Chandler, City Clk., or from Gilbert C. White Co., Engr., Durham, N. C. (See Construction News—Water-Works.)

Waterworks Equipment.—Pennington Water Co., Walter R. Pennington, Pennington Gap, Va.—Prices on A and B standard cast iron pipe, 4 and 6-in.; gate valves, T-s; fire hydrants; lead, etc.

Water-Works.—Town, O. J. Sikes, Mayor, Albemarle, N. C.—Bids until Apr. 4 to improve water-works; construct 450 x 28 ft. concrete dam, etc.; plans, etc., from Eli Kendrick, Clk., or Gilbert C. White Co., Engr., Durham, N. C. (See Construction News—Water-Works.)

Water-Works Equipment. — Town, J. A. Leonard, Mayor, Paul R. Raper, Clk., Lexington, N. C.—Bids until April 6 to improve water-works; construct brick and concrete pumping station, filter house and filter tube; brick and concrete auxiliary station; concrete storage reservoir; concrete coagulating basin; 3½-mi. cast iron pipe; 3½-mi. 2200-volt transmission line; install filter plant equipment; motor-driven centrifugal pumps and accessories; plans, etc., on file, or from Gilbert C. White Co., Engr., Durham, N. C. (See Construction News—Water-Works.)

Well.—City, J. M. Thompson, Clk., Germantown, Tenn.—Bids open to construct well, 6-in. diam. and 300 to 325 ft. deep. (See Construction News—Water-Works.)

Wire (Galvanized), etc.—Mississippi River Comsn., 1st and 2nd Dist., Customhouse, Memphis, Tenn.—Bids until April 3 to furnish and deliver 895,000 lbs. galvanized wire, wire strand and staples, 40,000 wire rope clips; information on application.

Workworking Machinery.—Leslie Picklesimer, Mgr., Equitable Lumber & Supply Co., Jeff, Ky.—Prices on woodworking mchy. (See Construction News—Lumber Manufacturing.)

Yarn Mill Machinery.—Old Fort Mills, D. W. Adams, Old Fort, N. C.—New or slightly used mchy. for 8000 spindle mill.

## Financial News

### New Financial Corporations.

Ala., Elberta—State Bank, capital \$10,000, inceptd., by Herman Koehler, Herman Doege.

Ala., Huntsville—Junior Chamber of Commerce interested in establishing building and loan association.

Ala., Repton—Union Bank, consolidation of Repton State Bank, and Merchants and Farmers Bank, capital \$30,000, organized with W. M. Newton, Prest.; N. Allen, Cashr.

Fla., Kissimmee—First National Bank will organize with \$50,000 capital.

Fla., Miami—Florida Cities Finance Co., capital \$1,000,000 applied for charter; those interested are: M. C. Tebbetts, H. H. Eyles.

Fla., Miami—Miami Bond & Mortgage Co., capital \$10,000, applied for charter; those interested are: J. P. Simmons, John S. Benz.

Md., Baltimore—Baltimore Active Building & Loan Assn., 506 W. Lee St., capital \$50,000, inceptd., by Noah Handy, Geo. Young.

Md., Dundalk (Baltimore, Md.)—Dundalk Improvement Building & Loan Assn., capital \$104,000 inceptd., by Geo. R. Morris, Frank C. Miller.

N. C., Asheville—National Bank of Commerce, capital \$100,000 applied for charter; those interested are: B. S. Colburn, Wm. M. Redwood.

N. C., Charlotte—Carolina Homes & Investment Co., capital \$250,000, chartered with Charles W. Jones, W. H. Price.

N. C., Mt. Airy—Home Building & Loan Assn., organized with E. H. Kochtitzky, C. A. Shelton.

N. C., Winston-Salem—American Bond & Mortgage Co., capital \$125,000, inceptd., by J. F. Smithwal, H. D. Shutt.

Okla., Brinkman—First National Bank, capital \$25,000, chartered with L. S. Dearman, Prest.; West Holland, Cashr. (Lately noted.)

Okla., Binger—First National Bank, succeeds First State Bank, capital \$25,000, chartered with C. G. Kern, Prest.; B. S. Alnutt, Cashr.

Okla., Purcell—McClain County National Bank, conversion of McClain County State Bank, capital \$30,000, chartered with John H. Perry, Prest.; John H. Wells, Cashr.

Okla., Shidler—First National Bank, capital \$75,000 chartered with capital of \$75,000.

Okla., Shidler—First National Bank, capital \$25,000, will organize with capital of \$25,000.

Tenn., Nashville—Nashville Finance Corp., capital \$100,000, inceptd. by W. S. Guest, F. J. Nolan.

Tex., Abilene—Abilene Building & Loan Assn., capital \$2,000,000, inceptd., by E. B. Moore, C. L. Hailey.

Tex., El Paso—Rocky Mountain Note Co., capital \$60,000 organized with C. M. Dennison, Prest., Denver, Col.; Webb G. Seibold, V.-P., Los Angeles, Cal.

Tex., El Paso—V. E. Ware Investment Co., capital \$100,000, inceptd. by V. E. Ware, H. T. Ware.

Tex., Waco—Waco Building & Savings Assn., capital \$1,000,000 inceptd., by Edward Rotan, E. W. Marshall.

W. Va., Charleston—American Savings & Loan Co., capital \$125,000, inceptd., by A. E. Cavender, H. C. Deisher.

### New Securities.

Ala., Andalusia—School, etc.—City votes Mch. 17 on \$87,500 bonds including \$55,000 school and \$12,500 funding bonds. Address The Mayor.

Ark., DeQueen—City will sell \$100,000 of 6 per cent 2 to 20-yr. bonds. Address the Mayor.

Ark., Morrillton—Paving—Morrillton Paving Improvement Dist. No. 1 sold \$100,000 of 6 per cent paving bonds. (Lately noted inviting bids.)

Ark., Morrillton—Road—Conway County Road Improvement Dist. No. 2 sold \$200,000 of 5 per cent bonds offered on Jan. 20 to Wm. R. Compton Co., St. Louis, Mo. (Lately noted.)

Fla., Dade City—School—Pasco County Board Public Instruction will receive bids until Mch. 27 on \$50,000 of 6 per cent 20-yr. bonds of Special Tax School Dist. No. 32.

Fla., Fort Lauderdale—Sewer and Street—City plans voting on sewer and street bonds. Address the Mayor.

Fla., Fort Lauderdale—Road—Broward County Commrs. will receive bids until Apr. 11 on \$600,000 bonds; Frank A. Bryan, Clk. (Lately noted inviting bids.)

Fla., Hastings—Sewer—City contemplates voting on bonds. Address the Mayor.

Fla., Homestead—Street—Town, R. E. Edwards, Clk., sold \$15,000 of 6 per cent \$500 denomination bonds, dated Aug. 1, 1920. (Lately noted inviting bids.)

Fla., Jupiter—Road—Jupiter Special Road and Bridge Dist. No. 8, sold \$78,000 bonds to Farmers Bank and Trust Co., West Palm Beach, Fla., at \$95.02 and accrued interest.

Fla., Passagrille—Water, Electric, Etc.—City voted \$10,000 electric, water and other bonds. (Address The Mayor.)

Fla., Safety Harbor—Electric—City, A. E. Shower, Clk., plans voting on \$10,000 electric bonds.

Fla., Wauchula—Bond Trustees, Geo. S. Williams will receive bids until May 17 on \$80,000 of 6 per cent semi-annual \$1000 denomination bonds.

Fla., Williston—Paving—Town, A. B. Jarrell, Prest. Council, will receive bids until Apr. 4 on \$12,000 of 6 per cent semi-annual bonds, dated Jan. 1, 1921.

Ga., Albany—School and Sewer—W. M. Davis & Co., Macon, Ga. purchased \$10,000 school and \$12,000 sewer bonds.

Ga., Irwinton—School—W. M. Davis & Co., Macon, Ga., purchased \$15,000 of 6 per cent \$500 denomination serial bonds, dated Jan. 1, 1921.

Ga., Rossville—School—City sold \$80,000 bonds to Trust Co. of Georgia, at par and premium of \$566.66.

Ga., Rossville—Water—City will vote Mch. 25 on \$30,000 bonds. Address The Mayor.

Ga., Rossville—School—City sold \$80,000 of 6 per cent serial bonds to Trust Co. of Georgia, Atlanta, Ga., at premium of \$566.

Ga., Savannah—Bridge—Chatham County Commrs. plans voting on about \$700,000 bonds.

Ky., Covington—Road and Bridge—Kenton County, John W. Middendorf, County Clk. will receive bids until April 4 on \$500,000 of 5 per cent \$1000 denomination 16½-yr. bonds, dated April 1, 1922.

Ky., Louisville—School—Board of Education sold \$1,000,000 of 5 per cent 40-yr. bonds to J. B. Hilliard & Son, Louisville.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Ky. and Eldridge & Co., New York, at \$1, 198,100. (Lately noted inviting bids.)

Ky., Madisonville—School—Board of Education, D. Utley, Prest. will receive bids until Mch. 31 on \$53,000 of 6 per cent semi-annual \$500 and \$1000 denomination 20-yr. bonds.

La., Amite — Road — Tangipahoa Parish Road Dist. No. 6, sold \$99,000 of 5 per cent \$500 denomination bonds, dated July 1, 1920, to Caldwell & Co., Nashville, Tenn., at \$91.14. (Lately noted inviting bids.)

La., Baton Rouge — Road — East Baton Rouge Parish Police Jury, Jos. Gebelin, Prest. will receive bids until Apr. 11 on \$175,000 Road Dist. No. 2 bonds; 5 per cent semi-annual \$1000 denomination, dated July 1, 1922. (Lately noted.)

La., Greensburg—Road—St. Helena Parish Police Jury will receive bids until April 15 on \$50,000 of 5 per cent semi-annual \$500 denomination 22-yr. bonds; Chas. T. Allen, Secy.

La., Hammond—Street, City Hall, Light, Sewerage, etc.—City, C. C. Carter, Mayor, will receive bids until Mch. 28 on \$145,000 of 6 per cent semi-annual 25-yr. bonds.

La., Lake Charles—Channel—Calcasieu Parish Police Jury will vote June 13 on bonds.

La., Ponchatoula—Water and Sewer—City will vote on bonds. Address The Mayor.

Md., Cumberland — Funding — City sold \$190,000 bonds to J. S. Wilson, Jr., Baltimore, Md., at \$102.111, plus accrued interest.

Md., Frostburg — Fire Protection — City, John S. Metzger, Clk., will receive bids until Mch. 24 on \$100,000 of 5 per cent \$500 denomination bonds.

Md., Rockville—Road—Montgomery County Commrs. will issue road bonds.

Miss., Columbus—Refunding—City, A. B. Lawrence, Secy.-Treas., will receive bids until Mch. 28 on \$98,000 of 5½ per cent bonds.

Miss., Natchez—Adams County sold \$108,000 bonds to City Bank & Trust Co., at \$114.395.

Miss., Natchez—Road—Adams County Supvrs., H. B. Vaughn, Prest. Supvrs., voted \$40,000 bonds. (Lately noted to vote.)

Miss., Oxford—School—City may vote on \$60,000 bonds. Address the Mayor.

Miss., Pascagoula—Road—Jackson County sold \$387,000 bonds including \$95,000 Dist. No. 2, \$112,000 Dist. No. 3, \$180,000 Dist. No. 4 to Bank of Commerce and Trust Co., Memphis, Tenn., at par, accrued interest and premium of \$100. (Lately noted inviting bids.)

Miss., Ruleville—School—City sold \$35,000 of 6 per cent semi-annual 25-yr. bonds to Bank of Ruleville, at par and accrued interest. (Lately noted inviting bids.)

Mo., Aurora—Sewer—City will vote April 18 on \$40,000 of 5 per cent \$1000 and \$1000 denomination 20-yr. bonds. Address the Mayor.

Mo., Burlington Junction — Water and Sewer—City will vote Mch. 28 on bonds. Address The Mayor.

Mo., Macon—Drainage—Board Directors Chariton Drainage Dist. No. 2 sold \$140,000 bonds to Liberty Central Trust Co., and Lewis W. Thompson Bonding House, St. Louis, Mo., at \$100.80 per \$1000.

Mo., Mercer — Drainage — Weldon River Drainage Dist. sold \$105,000 bonds to W. R. Compton Co., St. Louis, Mo.

Mo., Sarcosie—School—City votes Mch. 21 on \$20,000 bonds. Address The Mayor.

Mo., Springfield—Sewer—City will vote Apr. 4 on \$50,000 bonds. Address the Mayor.

Mo., Troy — Drainage — Culvre Drainage Dist., R. L. Sutton sold \$50,000 of 6 per cent \$1000 denomination bonds, dated Jan. 1, 1922, to Potter, Kauffman & Co., St. Louis, Mo., at 101. (Lately noted.)

N. C., Asheville—Street, Refunding, Water, Sewer, Fire, Station, Incinerator—City Commrs. sold \$150,000 street, \$200,000 refunding, \$65,000 water, \$65,000 sewer, \$25,000 fire station and \$40,000 incinerator bonds to American Trust Co., Charlotte, N. C. for \$556,020. (Lately noted inviting bids.)

N. C., Asheville—School—Buncombe County Commrs. sold \$12,000 Turkey Creek Consolidated Dist. bonds to Miss Roberta Rogers, Marshall, N. C.; 6 per cent \$500 denomination.

N. C., Bakersville—Road—Mitchell County Road Commrs., M. A. Anderson, Chrmn., will receive bids until Apr. 4 on \$30,000 Cane Creek Township and \$40,000 Snow Creek Township bonds; 6 per cent semi-annual straight and serial 30-yr.

N. C., Elizabethton—Drainage—Bladen County Drainage Commrs., Dist. No. 1 sold \$35,000 of 6 per cent semi-annual bonds, dated Mch. 1, 1922; D. A. Mashburn, Secy. (Lately noted inviting bids.)

N. C., Elizabethton—School — Bladen County, B. J. Cromartie, Clk. Board of Education sold \$25,000 Brown Marsh Township School Dist., \$15,000 Elizabethtown High School Dist., \$10,000 Frenches Creek Township School Dist., and \$6000 White Oak High School Dist. bonds to Hanchett Bond Co., Chicago, Ill. at 6.18%. (Lately noted inviting bids.)

N. C., Enfield—Water, Sewer and Electric —Town, John L. Burrows, Clk. receives bids Mch. 21 on \$70,000 water, \$70,000 sewer and \$50,000 electric bonds; changed date from Mch. 14; 6 per cent semi-annual \$1000 denomination, dated Jan. 1, 1922. (Lately noted receiving bids Mch. 14.)

N. C., Graham—School—Board of Trustees, Sam Piples, Secy. sold \$20,000 of 6 per cent \$500 denomination bonds of Elmira School Dist., dated Feb. 1, 1922 to Prudden & Co., Toledo, O. (Lately noted inviting bids.)

N. C., Greensboro—Road Guilford County Commrs. sold \$1,000,000 bonds to Fifth-Third National Bank, Well, Roth & Co.; both Cincinnati, O.; Detroit Trust Co., Detroit, Mich.; Mississippi Valley Trust Co. and National Bank of Commerce; both St. Louis, Mo., at premium of \$18,7000. (Lately noted inviting bids.)

N. C., Halifax—School—Halifax County Board of Education, A. E. Akers, Secy. will receive bids until April 10 on \$25,000 of 6 per cent semi-annual serial \$1000 denomination bonds of Palmyra Township dated April 1, 1922.

N. C., Henderson—School—City voted \$100,000 bonds. Address The Mayor.

N. C., Lumberton—Sewer, Water, Street and Floating Indebtedness—Town Commrs. will issue \$120,000 sewer and water, \$80,000 street and sidewalk and \$35,000 floating indebtedness bonds.

N. C., Mount Holly—Water and Sewer—Town, W. B. Rutledge, Clk. sold \$80,000 of 6 per cent \$500 denomination 42-yr. bonds, dated Mch. 1, 1922 to W. A. Ebert, Charlotte, N. C., at par and accrued interest. (Lately noted inviting bids.)

N. C., Pollockville—School—Pollockville Special Tax School Dist. sold \$60,000 of 6 per cent bonds, dated May 1, 1921 to Prudden & Co., Toledo O., at par.

N. C., Sanford—School—Lee County Commrs. voted \$100,000 bonds. (Lately noted to vote.)

N. C., Tarboro—Bridge—John A. Weddell,

Auditor will receive bids until Mch. 23 on \$100,000 of 5½ per cent semi-annual 14½ average bonds.

N. C., Troy—Court House and Road—Montgomery County sold \$17,000 courthouse and \$100,000 road bonds to Seasongood & Mayer, New York; 6 per cent semi-annual \$1000 denomination, dated Feb. 1, 1922.

N. C., Tryon—Street—Town, M. G. Blake, Clk. will receive bids until April 3 on \$60,000 of 6 per cent semi-annual \$1000 denomination bonds, dated April 1, 1922.

N. C., Whiteville—Street and Sidewalk—Town Commrs., M. T. Moyers, Clk. sold \$7500 street bonds, dated Jan. 1, 1922; \$75,000 streets bonds, dated July 1, 1920 and \$20,000 sidewalk bonds, dated Jan. 1, 1921 to Prudden & Co., Toledo, O., at par and accrued interest. (Lately noted inviting bids.)

N. C., Wilson—Water, Light, Sewer and Street—City, Theo. A. Hinnant, Clk., sold \$70,000 water, light and sewer and \$50,000 street bonds. (Previously noted inviting bids.)

Okla., Bristow—Water, Sewer and Park—City voted Mch. 21 on \$50,000 water, \$50,000 sewer and \$20,000 park bonds. Address The Mayor.

Okla., Cement — Road — Caddo County, Cement Township voted \$49,000 of 6 per cent \$1000 denomination 25-yr. bonds. (Lately noted to vote.)

Okla., Chickasha—Sewer, Water and Bridge —City, J. R. Wellborn, Clk. sold \$80,000 bonds including \$30,000 bridge, \$10,000 sewer and \$40,000 water bonds to Taylor-White Bond Co., Oklahoma City, Okla., at par, accrued interest and premium of \$4800. (Lately noted inviting bids.)

Okla., Covington — School — Covington School Dist. voted \$32,000 bonds. Address Board of Education.

Okla., Edmond — School — City contemplates voting on \$150,000 bonds. Address The Mayor.

Okla., Eldorado—Electric—Town, J. P. Leach, Clk. received bids on \$20,000 bonds. (Supersedes recent item.)

Okla., Henryetta—Sewer, Water and Fire Equipment—City will vote Mch. 30 on \$230,000 bonds including \$85,000 disposal plant and sanitary sewer, \$75,000 storm sewer, \$45,000 water main extension and \$25,000 fire equipment. Address the Mayor.

Okla., Jay—Road—Delaware County Commrs. sold \$50,000 of 6 per cent 50-yr. bonds to Geo. W. & J. E. Piersol, Oklahoma City, Okla., at par and accrued interest; these bonds were voted Apr., 1920.

Okla., Marlow—Water and Sewer—City sold \$80,000 bonds. Address The Mayor. (Lately noted voting.)

Okla., Pawhuska—Hospital—City sold \$65,000 bonds. Address The Mayor. (Lately noted voting.)

Okla., Tulsa—Sewer—City, T. D. Evans, Mayor voted \$900,000 bonds. (Lately noted to vote.)

Okla., Tulsa—School — Tulsa and Osage Counties' Consolidated School Dist. No. 2, sold \$35,000 of 6½ per cent bonds to Commerce Trust Co., Kansas City, at par, accrued interest and premium of \$1151.

Okla., Vinita—Funding—City sold \$70,000 bonds to W. C. Illick, Muskogee, Okla., at par and accrued interest.

S. C., Allendale—Road—Allendale County, Paul J. Fulmer, Clk., County Board sold \$15,000 of 6 per cent \$1000 denomination bonds, dated Jan. 1, 1922, to Carolina Bond & Mortgage Co., Columbia, S. C., at \$475 premium and accrued interest. (Lately noted inviting bids.)

S. C., Easley—School—J. R. Martin,

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March 23, 1922.

## MANUFACTURERS RECORD.

Chrmn. Board Trustees will receive bids until April 4 on \$50,000 of 5 per-cent \$1000 denomination 20-yr. bonds, dated April 1, 1922; these bonds were voted Mch. 7. (Lately noted contemplating.)

S. C., Fort Mill—Indebtedness—Town sold \$4,000 bonds to Loan & Exchange Bank, York, S. C.

S. C., Marion—Street, Sewer, Drainage and Electric—Town Commrs. sold \$100,000 improvement bonds including \$68,000 street and sidewalk, \$12,000 sewerage, \$15,000 drainage and \$5,000 electric light bonds; 5 per-cent semi-annual \$1000 denomination, dated Feb. 1, 1922 to A. T. Bell & Co., Toledo, O., at \$94,805 and accrued interest. (Lately noted inviting bids.)

S. C., Orangeburg—Street—T. O. S. Dibble, Clk. will receive bids until Mch. 24 on \$250,000 of 5½ per-cent semi-annual 14½-yr. bonds.

S. C., Spartanburg—Funding—Spartanburg County will receive bids until Mar. 30 on \$110,000 of 5 per-cent semi-annual 11½-yr. bonds.

S. C., Walhalla—Water and Sewer—Town sold \$125,000 bonds to Trust Co. of Georgia, Atlanta, Ga., at par, accrued interest and premium of \$699.50; 6 per-cent semi-annual \$1000 denomination serial. (Lately noted inviting bids.)

Tenn., Algood—School—Bond Comsn., H. T. Pointer, and others sold \$30,000 of 6 per-cent Algood School Dist. bonds to Dr. J. A. Butler, Algood, at par, accrued interest and premium of \$100. (Lately noted inviting bids.)

Tenn., Alton Park—Sidewalk—City Comsn. plans issuing bonds.

Tenn., Athens—Street—City sold \$90,000 bonds to Baker, Gamble & Brown, Chattanooga, Tenn.

Tenn., Benton—School—Polk County, T. S. Goodness, Chrmn. County Court will receive bids until April 15 on \$60,000 of 5 per-cent semi-annual \$1000 denomination, special school bonds, dated Jan. 1, 1922.

Tenn., Brownsville—Highway—Haywood County, W. T. Davis, Clk. County Court sold \$113,000 of 6 per-cent bonds offered on Jan. 27 to I. B. Tigrett & Co., Jackson, Tenn. (Previously noted inviting bids.)

Tenn., Dresden—School—City voted \$25,000 bonds. Address The Mayor.

Tenn., Germantown—Water and Light—City, J. M. Thompson, Clk. sold \$15,000 of 6 per-cent bonds. (Lately noted inviting bids.)

Tenn., Memphis—Street, Hospital, Terminal, Etc.—City will receive bids until April 4 on \$500,000 revenue notes and \$1,425,000 bonds; C. C. Pashby, City Clk.

Tenn., Nashville—Street and General Improvement—City, S. H. McKay, Clk. sold \$178,000 of 5 per-cent semi-annual 25½-yr. street opening and improvement; \$130,000 of 6 per-cent semi-annual 13½-yr. general improvement and \$170,000 of 6 per-cent semi-annual 1-5-yr. serial street bonds to Harris Trust Co., Chicago, Ill., at \$500,683. (Lately noted inviting bids.)

Tenn., Petersburg—School—W. W. Gill, City Clk. sold \$10,000 of 8 per-cent Morgan school bonds, dated Dec. 15, 1921 to W. B. Moore, Petersburg, at \$107,125. (Lately noted inviting bids.)

Tenn., Union City—Road—Obion County, J. B. Waddell, County Judge will receive bids until Mch. 30 on \$95,000 of 5 per-cent bonds. (Lately noted voting.)

Tex., Bastrop—School—State Comptroller, Austin, Tex. registered \$33,000 of 5 per-cent serial bonds on Mch. 1.

Tex., Bloomburg—School—J. L. Arlitt, Austin, Tex. purchased \$14,000 Bloomburg Independent School Dist. bonds.

Tex., Bonham—Road—A. P. Bolding, County Judge received bids on \$10,000 of 5 per-cent \$1000 denomination bonds, dated Mch. 15, 1919.

Tex., Canadian—Water and Sewer—State Comptroller, Austin, Tex. registered \$5000 water and \$5000 sewer bonds.

Tex., Childress—Water—City plans voting on \$300,000 bonds; J. W. Mitchell, Mayor.

Tex., Chillicothe—Sewer and Water—Attorney General, Austin, Tex., approved \$75,000 sewer and \$35,000 water bonds.

Tex., Colorado—Water and Sewer—City sold \$85,000 water and \$35,000 sewer bonds to Houghton-Lumsden & Co., Dallas, Tex.

Tex., Dallas—Road—Chas. E. Gross, County Auditor sold \$1,700,000 of 5½ per-cent \$1000 denomination 30-yr. serial Dallas County Road Dist. No. 1 bonds to syndicate composed of Eldredge & Co., Marshall Field, Gloré, Ward & Co., and Curtis & Sanger; all New York, and First National Co., Detroit, Mich., and Stifel-Nicolaus Investment Co., St. Louis, Mo., at \$103.22. (Lately noted inviting bids.)

Tex., Dallas—School—Board of Education, C. M. Fields, Chrmn., will sell \$100,000 bonds in near future. (Lately noted voted.)

Tex., Denton—School—City will vote April 18 on \$30,000 bonds. Address The Mayor.

Tex., Fairfurlas—Road—J. L. Arlitt, Austin, Tex. purchased \$60,000 Brooks County bonds.

Tex., Greenville—City, J. O. Willman, Clk., will receive bids until Mch. 28 on \$150,000 of 6 per-cent semi-annual \$1000 denomination bonds, dated April 15, 1922.

Tex., Greenville—School—City voted \$150,000 bonds. Address The Mayor. (Lately noted.)

Tex., Groesbeck—School—City voted \$60,000 bonds. Address The Mayor.

Tex., Highland Park (P. O. Dallas)—Water—Town, H. R. Davis, Mayor, will receive bids until Mch. 16 on \$150,000 of 6 per-cent \$1000 denomination bonds voted Mch. 7. (Lately noted to vote.)

Tex., Jacksonville—School—Independent School Dist. will sell \$45,000 bonds. Address Board of Education.

Tex., Kerens—School—Kerens Independent School Dist. Trustees plans voting about Apr. 1 on bonds.

Tex., Memphis—School—State Comptroller, Austin, Tex. registered Hall County Common School Dist. No. 19 bonds.

Tex., Orange—Wharf and Dock—Attorney General, Austin, Tex., approved \$240,000 bonds. (Lately noted.)

Tex., Palo Pinto—Road—State Comptroller, Austin, Tex., registered \$4000 of 5 per-cent 10-20-yr. bonds of Palo Pinto County Road Dist. No. 1.

Tex., Ranger—Hospital—State Comptroller, Austin, Tex. registered \$35,000 of 6 per-cent serial bonds.

Tex., Robstown—Street—Attorney General, Austin, Tex., approved \$40,000 of 6 per-cent street bonds.

Tex., San Angelo—Paving—City sold \$150,000 bonds of 6 per-cent 30-yr. bonds to Bosworth, Chanute & Co., Denver, Colo., at par, accrued interest and premium of \$5,676.76. (Lately noted inviting bids.)

Tex., Sarita—Courthouse and Jail—Elston & Allyn Co., Chicago, Ill., purchased \$75,000 Willacy County bonds.

Tex., Snyder—School Trustees—Independ-

ent School sold \$75,000 bonds to Breg, Garrett & Co., Dallas, Tex.

Tex., South Park (P. O. Beaumont)—School—Attorney General, Austin, Tex., approved \$300,000 of 5½ per-cent serial bonds.

Tex., Star—School—State Comptroller, Austin, Tex., registered \$15,000 of 6 per-cent 10-40-yr. bonds on Feb. 27.

Tex., Taylor—School—City Comsn. will issue \$150,000 bonds.

Tex., Taylor—School—City, A. V. Hyde, Clk., will receive bids until Mch. 28 on \$150,000 of 5 per-cent \$1000 denomination bonds, dated July 1, 1921.

Tex., Teague—School—School Board, H. E. Cochran, Secy., sold \$50,000 bonds. (Lately noted voting.)

Tex., Tyler—Sewer—Attorney General, Austin, Tex. approved \$100,000 bonds; H. J. Graesser, Mgr.

Tex., Weatherford—Sewer—City sold \$25,000 bonds at par and accrued interest plus \$100 premium. Address The Mayor.

Tex., Wellington—Electric—City, R. H. Templeton, Mayor, sold \$50,000 of 6 per-cent semi-annual serial \$1000 and \$1500 denomination bonds, dated Jan. 1, 1922, to Guaranty Trust Co., Kansas City, Mo. (Lately noted inviting bids.)

Tex., Weslaco—Street—J. L. Arlitt, Austin, Tex. purchased \$10,000 of 6 per-cent bonds.

Tex., Weslaco—Water—State Comptroller, Austin, Tex., registered \$50,000 bonds on Feb. 27.

Tex., West—School—City plans voting on bonds. Address The Mayor.

Tex., Willis Point—Paving—City will vote Apr. 4 on \$30,000 bonds. Address The Mayor.

Tex., Willis Point—Street and Light—City will vote on bonds. Address The Mayor.

Va., Chatham—Water and Street—Town may issue \$32,000 bonds. Address The Mayor.

Va., Clifton Forge—Electric—City voted \$240,000 bonds. Address The Mayor.

Va., Dublin—School—Dublin School Dist. will vote April 11 on \$46,000 bonds. Address Board of Education, Pulaski, Va.

Va., Eastville—Geo. T. Tyson, Clk., Board Supvrs., received bids on \$500 of \$500 denomination Franktown Magisterial Dist. bonds, dated April 1, 1922.

Va., Radford—Improvement—City, H. P. Anderson, Clk. sold \$150,000 of 5½ per-cent \$1000 denomination bonds to Seasongood & Mayer, Cincinnati, O., at par, plus premium of \$315. (Lately noted inviting bids.)

Va., South Boston—Refunding—Town, John W. Hardy, Treas., sold \$200,000 of 5½ per-cent bonds, dated Feb. 1, 1922, to Fred. E. Nolting & Co., Richmond, Va. (Lately noted inviting bids.)

Va., South Hill—Water, Light, Power, Sewerage—Town, N. G. Smith, Clk., will receive bids until May 1 on \$100,000 to \$150,000 of 6 per-cent 35-yr. bonds.

W. Va., Bridgeport—Bridge and Water—City will vote Apr. 25 on referendum vote on \$55,000 bond including \$25,000 water and \$30,000 bridge bonds. Address The Mayor.

W. Va., Bridgeport—Paving—H. M. Garrett, Town Recorder, will receive bids until Mch. 21 on \$37,000 of 6 per-cent \$500 denomination bonds, dated Jan. 2, 1922.

W. Va., Follansbee—Refunding—Citizens Bank purchased \$30,000 of 6 per-cent bonds.

W. Va., Grafton—Filtration—City will vote Mch. 28 on \$100,000 bonds. Address the Mayor.

W. Va., Grafton—Road—Taylor County plans selling \$700,000 bonds voted last yr. Address County Court.

W. Va., Jaeger—Street—City plans voting on bonds. Address The Mayor.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



W. Va., New Martinsville—School—Wetzel County, Magnolia Dist. will vote April 4 on \$148,000 bonds. Address Board of Education.

W. Va., Petersburg—Water, Sewer, Drainage and Street—H. F. Baker, Town Recorder received bids on \$12,000 of 6 per cent \$500 and \$100 denomination water, sewer and street bonds.

W. Va., Ripley—Road—Jackson County, Enoch Staats, Clk. Court, will receive bids until Mch. 18 on \$109,200 of 5 per cent \$1300 denomination Ripley Dist. bonds, dated Nov. 1, 1920.

W. Va., Wheeling—Water—City will vote in April on \$2,000,000 bonds. Address The Mayor. (Lately noted.)

### Financial Notes.

American Exchange National Bank, Dallas, Tex. increased capital from \$1,500,000 to \$2,000,000.

Atlanta Trust Co., Atlanta, Ga., increased capital from \$1,300,000 to \$1,500,000.

Bank of Vanceboro, N. C., increased capital to \$100,000. (Lately noted.)

Birmingham Trust & Savings Co., Birmingham, Ala. will increase capital from \$500,000 to \$1,000,000.

Citizens Bank, Lake Wales, Fla. increased capital from \$50,000 to \$75,000.

State Loan & Savings Association, Baltimore, Md., changed name to State Building, Loan & Savings Association, Inc., and increased capital from \$10,000 to \$50,000.

Planters Bank, Americus, Ga. will increase capital from \$50,000 to \$100,000.

Employees' Savings Bank, Pacolet, S. C. will increase capital from \$5000 to \$10,000.

The National Exchange Bank of Baltimore, which recently completed the reconstruction and enlargement of its building has issued a handsomely prepared booklet containing a short history of the institution together with photographic reproductions of likenesses of its several presidents and the present board of directors, besides views of the interior and exterior of the bank building. The bank was organized in 1865.

Title Guarantee & Trust Co., Baltimore, Md., will increase capital from \$200,000 to \$400,000.

### Trade Literature.

#### The Value of Lubrication.

The Keystone Lubricating Company, Philadelphia, Pa., have issued a pocket sized booklet of 48 pages bearing the title "Lowering and Stabilizing the Cost Curve" which relates to the uses and value of lubrication in different lines of industrial activity. It especially presents the merits of the Keystone Lubricants and lubricating appliances, of which there are several illustrations.

#### Value of Creosoted Pine.

The Creosoted Materials Co., Inc., 301 Queen & Crescent Building, New Orleans, La., has issued a folder full of interesting and instructive information about the value of "Everlasting Creosoted Pine." The creosoting process is described and the interesting statement is made that the actual life of creosoted material is not yet known; that creosoted pine piling put in railroad bridges 45 years ago is still sound and in use supporting heavy trains daily. The folder contains a number of appropriate illustrations as well as many important facts.

#### "Leaning Wheel" Graders.

J. D. Adams & Company, manufacturers of road machinery, have just issued an attractive folder on the use of Adams adjustable "leaning wheel" graders and explaining the leaning wheel principle involved in their construction. The folder is finely illustrated with numerous pictures, which are accompanied by full and interesting descriptions.

#### As to Fine Illumination.

Several interesting and valuable bulletins issued by the Edison Lamp Works of the General Electric Company, Harrison, N. J., tell, with illustrations about the lighting of metal working plants, lighting for the clothing industry, illumination of large dry goods and department stores and the lighting of signs and billboards. Anyone interested in the matter of utilizing electric lights to the best advantage will find valuable facts in these booklets.

### Increasing Construction Activity South.

Construction items in recent weeks set high record.

March 2.....	1135
March 9.....	1120
March 16.....	1125

1922 average for 11 weeks—1057

#### Average weekly totals for previous years.

1921.....	915
1920.....	978
1919.....	1058
1918.....	733
1917.....	946
1916.....	1104
1915.....	1068
1914.....	1139
1913.....	1143
1912.....	1109

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

#### Two Manufacturing Plants to Be Sold.

An important sale of manufacturing property is announced in another column to take place at 10 A. M. Tuesday, April 18, the sale to continue four days beginning at the same hour daily. It will cover the two plants of the Bethlehem Motors Corporation at Allentown and Pottstown, Pa., besides about \$1,000,000 of material for manufacturing the Bethlehem motor trucks and including some 600 engines in course of completion. There is also a large amount of machinery in the two plants which is to be sold and comprising modern machine tools. The Allentown plant buildings are one story of brick and structural steel on 14 acres of ground and the Pottstown plant is a two story modern brick factory with about 2 acres. Further particulars are in the formal announcement. Samuel T. Freeman & Co., 1519-21 Chestnut St., Philadelphia, Pa., are the auctioneers.

#### New Radio Station—Amateur Wireless Demands.

It is announced that the General Electric Company has established at its plant in Schenectady, N. Y., a radio broadcasting station which is one of the most powerful, if not the most powerful of its kind in this country. It will operate on a 360 meter wave length under the letters W. G. Y. Introduced unheralded to the small army of amateur wireless telegraphers "W. G. Y." has already been heard as far southward as Santa Clara, Cuba, and as far westward as Cedar Rapids, Ia., although no attempt has been made to obtain great distances. The station contains the most modern radio sending apparatus connected from the roof of a five-story factory building to two 183-foot towers spaced 350 feet apart, which support the antenna at such a height as to give unobstructed passage to the wireless waves. A three-room studio where programs are produced is in a building nearby. Impromptu programs have been sent out for several weeks. Announcement of a complete line of radio apparatus for amateurs is expected shortly from the company, which is making every effort to increase manufacturing facilities to meet the fast increasing demand. This equipment will be sold through the Radio Corporation of America.

#### Surplus Equipment to Be Sold.

An absolute auction sale of Government surplus equipment is announced to take place at Amatol, N. J., 30 miles east of Camden, on the White Horse Pike, on Tuesday and Wednesday, March 28 and 29, the sale beginning at 11 A. M. daily. The sale includes generator sets, boilers, electric motors, oil engine, electric apparatus and material, lathes, drills, etc., besides milled steel in assorted sizes, pipe, steel rails, small tools, etc., etc. Further particulars will be found in the formal announcement of the auctioneers, Samuel T. Freeman & Company, 1519-21 Chestnut St., Philadelphia, Pa.

#### New York Office Opened.

The Penn Bridge Company of Beaver Falls, Pa., have opened a branch office at 101 Park Ave., N. Y., with P. T. Robin and A. H. Robbert, contracting engineers, in charge thereof. This office will take care of all of the company's bridge and structural work in the east and besides, all of the crane and derrick business heretofore conducted at Beaver Falls. This company recently received a contract to construct and erect a Strauss trunnion bascule bridge over Shark River between Avon and Belmar, New Jersey.

#### Cut in Prices on Motor Trucks.

"In line with the reduction in prices of materials and with the increased volume of business, it is possible to make a substantial reduction in the prices of our products," says J. G. Culbertson, of the Wichita Motors Company, Wichita Falls, Tex. Accordingly the new prices upon the Wichita Trucks manufactured by this company, show reductions of from \$400 to \$500 as compared with the old prices, notwithstanding a number of very important improvements have been made in the various models. Mr. Culbertson also says: "The export trade in motor trucks is showing a very rapid recovery. Many pessimists predicted that the United States would lose its volume of foreign trade. These predictions have not materialized. With the gradual working out of the economic problems confronting the leading nations, we will find a steady improvement in trade relations. It is my prediction that our volume of trade in 1922 will greatly exceed that of 1921."

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

**1  $\frac{1}{3}$  more  
per dollar**

## Will not freeze in any weather

**D**UMORITE—the new Du Pont dynamite which gives you over  $\frac{1}{3}$  more work for your dollar—is *non-freezing*.

By rigorous laboratory tests and extensive field operations we find that Dumorite can be shot successfully at any temperature. It is just as good in below-zero weather as in the summer time.

Stick for stick, Dumorite does approximately the same work as 40% dynamite, but you can buy 135 to 140 sticks of Dumorite at the same price as 100 sticks of "40%." And Dumorite is a guncotton-nitroglycerin dynamite that will not cause headache.

Dumorite is being used successfully in most kinds of explosive operations. Write our nearest branch office giving details of your particular work and let our Service Department solve the problem of fitting Dumorite to your job. Let Dumorite reduce your explosives bills for 1922.

**E. I. du Pont de Nemours & Co., Inc.**

*Explosives Department*  
**Wilmington, Delaware**

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**NON-FREEZING**

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**New Orleans Flour Exports Break Records.**

New Orleans, La., March 11—[Special.]—Exports of flour from this port in 1921 exceeded all records and were double those of 1920, the total value being \$22,028,350 representing 3,024,567 barrels. In 1918 exports totaled 2,789,336 barrels, most of this going to countries at war with Germany. Last year's exports went to 40 countries, nineteen European countries taking 2,114,318 barrels.

**Cotton Oil Mill Men to Meet.**

The Joint Convention of the Interstate Oil Mill Superintendents' Association and the Oil Mill Superintendents' Exhibitors' Association will be held at Atlanta, Ga., June 14, 15 and 16, in the City Auditorium. Plans are being made for a large machinery exhibit.

The officers of the Interstate Association are as follows: President, R. F. Rodgers, Unadilla, Ga.; vice-president, B. B. Price, Suffolk, Va.; secretary-treasurer, J. W. Coon, Sanford, N. C. For the Oil Mill Superintendents' Exhibitors' Association, they are: President, W. H. Camp, Atlanta, Ga.; vice-president, A. D. Kennedy, Atlanta, Ga.; secretary-treasurer, W. Frank Daub, Atlanta, Ga.

The executive committee consists of: J. C. Burruss, L. J. Leary, J. M. Fraser and R. M. Fluker, all of Atlanta, Ga.

**Increased Shipment of Southern Pine.**

New Orleans, La., March 18—[Special.]—Orders received at 129 mills of the Southern Pine Association for the week ended March 10 totaled 3109 cars containing 65,366,725 feet, giving an average per mill of 506,719 feet compared with the average for the preceding week of 527,255 feet. Shipments, however, increased, totaling 3222 cars of 67,742,550 feet, thus averaging 525,136 feet, compared with 512,097 feet, the average for the week of March 3. Production amounted to 71,827,344 feet, and averaged 556,801 feet per mill while the preceding week average was 553,662 feet.

Shipments for the week were 5.69 per cent below production. Orders were 8.99 per cent below production and 3.51 per cent below shipments. The decrease in "orders on hand" during the week amounted to 1.02 per cent.

The summary report for the week follows:

	Cars.	Feet.
Orders on hand beginning of week.....	11,045	232,221,125
Orders received during week.....	3,109	65,366,725
Total .....	14,154	297,587,850
Shipments during week.....	3,222	67,742,550
Orders on hand end of week.....	10,932	229,845,300

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**GLASS PLANT AT BIRMINGHAM**

Cheap gas from the four byproduct plants in the Birmingham district, together with nearby silica and sand, would form a wonderful basis for glass manufacturing in Birmingham. Distributing freight rates out of Birmingham are very favorable. Real estate inquiries of all kind solicited.

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